ORDER NO. AD9303076C8

Service Manual

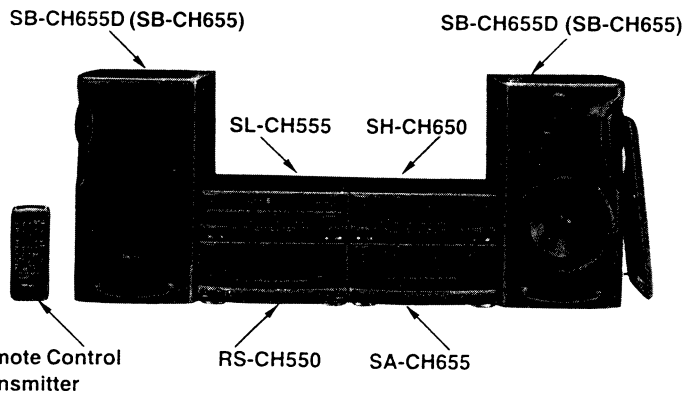
Compact Disc Changer

Compact Disc Player

SL-CH555

COMPACT disc DIGITAL AUDIO

MASH* multi-stage noise shaping



Colour

(K) ..... Black Type

Area

Suffix for Model No.	Area	Colour
(E)	Europe, Asia, Latin America, Middle Near East, Africa and Oceania	(K)

System: SC-CH655

Note:
On the above picture, Model No. SB-CH655D is printed as the system speaker.
The surround speakers are not supplied with model No. SB-CH655.

Because of unique interconnecting cables, when a component requires service, send or bring in the entire system.

SL-CH550 TRAVERSE DECK SERIES (RAE0111Z)

SPECIFICATIONS (DIN 45 500)

■ AUDIO
DA converter: 1 bit 2 DAC MASH

■ PICKUP
Wavelength: 780 nm
Laser power: No hazardous radiation is emitted (with safety protection)

■ GENERAL
Dimensions (W×H×D): 270×89.5×315 mm
Weight: 2.9 kg

Notes:
1. Specifications are subject to change without notice. Weight and dimensions are approximate.

*
- Technics (or Panasonic) developed the world's first MASH type DAC and ADC. MASH technology was invented by NTT (LSI Labs).
- MASH is a trademark of NTT.

System	Sound Processor	Tuner Amplifier	Compact Disc Changer	Cassette Deck	Speakers
SC-CH655	SH-CH650	SA-CH655	SL-CH555	RS-CH550	SB-CH655...Europe (Made in PAES)
					SB-CH655D...Asia, Latin America, Middle Near East, Africa and Oceania

Technics

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■ HANDLING PRECAUTIONS FOR TRAVERSE DECK

The laser diode in the traverse deck (optical pickup) may break down due to potential difference caused by static electricity of clothes or human body.
So, be careful of electrostatic breakdown during repair of the traverse deck (optical pickup).

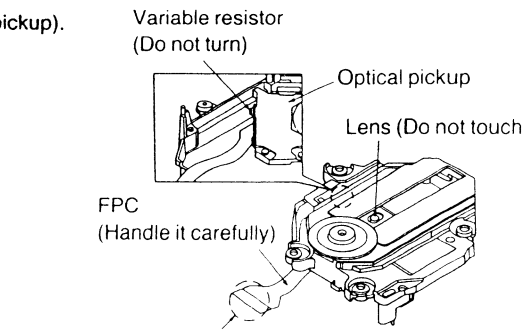
•Handling of traverse deck (optical pickup)

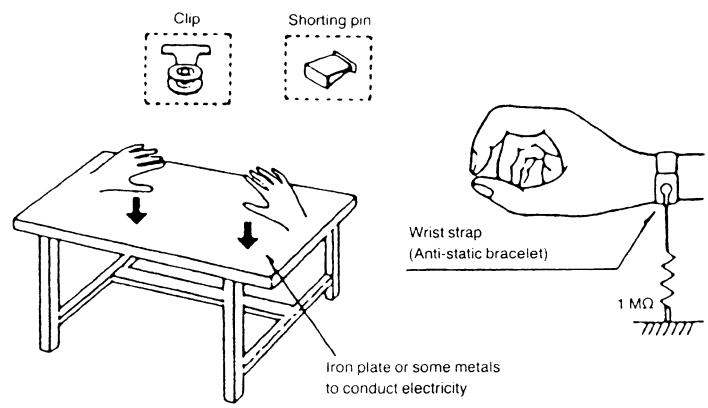
1. Do not subject the traverse deck (optical pickup) to static electricity as it is extremely sensitive to electrical shock.
2. To prevent the breakdown of the laser diode, an anti-static shorting pin is inserted into the flexible board (FPC board). When removing or connecting the short pin, finish the job in as short time as possible.
3. Take care not to apply excessive stress to the flexible board (FPC board).
4. Do not turn the variable resistor (laser power adjustment). It has already been adjusted.

•Grounding for electrostatic breakdown prevention

1. Human body grounding
   Use the anti-static wrist strap to discharge the static electricity from your body.
2. Work table grounding
   Put a conductive material (sheet) or steel sheet on the area where the traverse deck (optical pickup) is placed, and ground the sheet.

Caution:
The static electricity of your clothes will not be grounded through the wrist strap. So, take care not to let your clothes touch the traverse deck (optical pickup).





■ PRECAUTION OF LASER DIODE

CAUTION: This product utilizes a laser diode with the unit turned "on", invisible laser radiation is emitted from the pick up lens.
Wave length: 780 nm
Maximum output radiation power from pick up: 100 µW/VDE

Laser radiation from the pick up unit is safety level, but be sure the followings:

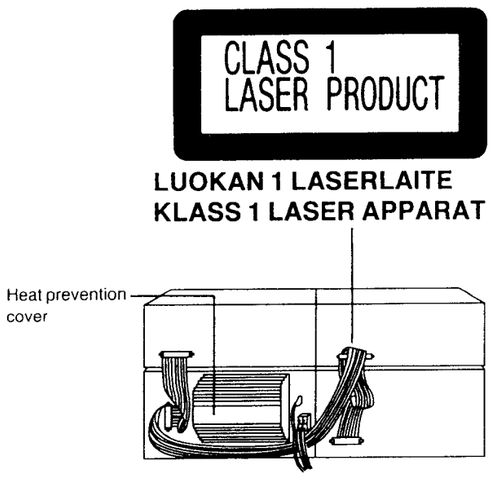
1. Do not disassemble the optical pick up unit, since radiation from exposed laser diode is dangerous.
2. Do not adjust the variable resistor on the pickup unit. It was already adjusted.
3. Do not lock at the focus lens using optical instruments.
4. Recommend not to lock at pick up lens for a long time.

ACHTUNG: Dieses produkt enthält eine laserdiode. Im eingeschalteten zustand wird unsichtbare laserstrahlung von der lasereinheit abgestrahit.

Wellenlänge: 780 nm
Maximale strahlungsleistung der laserinhelt: 100 µW/VDE

Die strahlung an der lasereinheit ist ungefährlich, wenn folgende punkte beachtet werden:

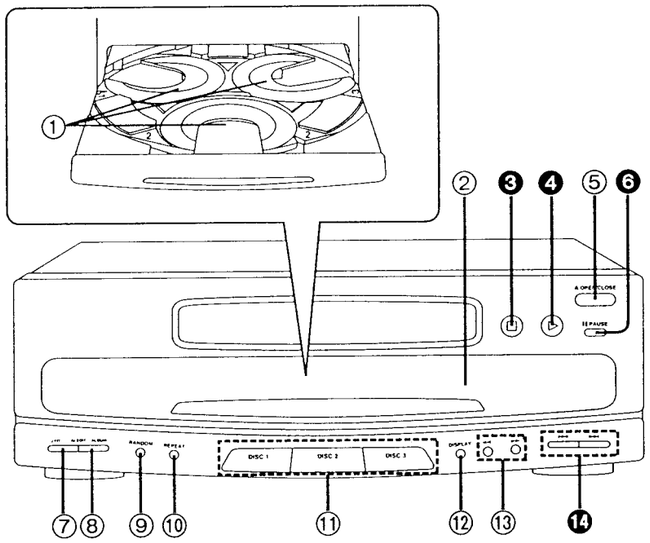
1. Die lasereinheit nicht zerlegen, da die strahlung an der freigelegten laserdiode gefährliich ist.
2. Den werksseitig justierten einstellregler der lasereinreit nicht verstellen.
3. Nicht mit optischen instrumenten in die fokussierlinse blicken.
4. Nicht über längere zeit in die fokussierlinse blicken.



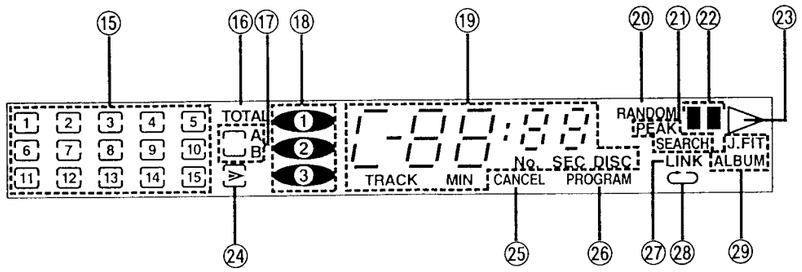
ADVARSEL: USYNLIG LASERSTRÅLING VED ÅBNING, NÅR SIKKERHEDSAFBRYDERE ER UDE AF FUNKTION. UNDGÅ UDSÆTTELSE FOR STRÅLING.
VARO! Avattaessa ja suojalkitus ohitettaessa olet alttiina näkymätön lasersäteilylle. Älä katso säteeseen.
VORSICHT-Unsichtbare Laserstrahlung, wenn Abdeckung geöffnet. Nicht dem Strahl aussetzen.
DANGER-Invisible laser radiation when open. AVOID DIRECT EXPOSURE TO BEAM.
VARNING! Osynlig laserstrålning när denna del är öppnad och spärren är urkopplad. Betrakta ej strålen.
ADVERSEL! Usynlig laserstråling når deksel åpnes og sikkerhedslås brytes. Unngå eksponering for strålen.

NOTE:
Refer to the service manual for Model No. SA-CH655 (Order No. AD9302059C8) for information on "ACCESSORIES", "STACKING THE COMPONENTS", "CONNECTIONS" and "PACKAGING".

■ LOCATION OF CONTROLS



•Display section



Note:
The functions indicated by the numbers with black background (for example ❸) can also be activated from the remote control.

① **Disc trays (1–3)**
You can load up to three discs; one disc per one tray.

② **Loading drawer**
You can load and unload discs when this drawer is open.

❸ **Stop button (□)**
Press to stop the disc play.

❹ **Play button (▷)**
Press to start the disc play.

⑤ **Loading drawer open/close button (▲ OPEN/CLOSE)**
Press to open or close the loading drawer.
If you press this button while the play indicator is lit, the drawer will open to half position.

❻ **Pause button (❚❚ PAUSE)**
Press to stop the disc play temporarily.

⑦ **Fit edit button (J.FIT)**
Press to activate the fit edit mode of the edit-recording.

⑧ **Sequential CD recording button (ALBUM)**
Press to activate the sequential CD recording mode of the edit-recording.

⑨ **Random play button (RANDOM)**
Press to play the disc's tracks in random order.

⑩ **Repeat button (REPEAT)**
Press to activate the repeat mode.

⑪ **Disc buttons (DISC 1–3)**
Press to select the desired disc.

⑫ **Display button (DISPLAY)**
Press to change the display.

⑬ **Search buttons (◀◀, ▶▶)**
Press to hear disc sound at high speed while searching in the play mode.

❹ **Skip buttons (|◀◀, ▶▶|)**
Press to move forward or backward through the tracks on a disc.

•Display section

⑮ **Matrix display**
Shows the total number of tracks on a disc, the current playing track to flash and the tracks edited on side A and B.

⑯ **Total track indicator (TOTAL)**
Lights to show the total number of tracks edited on side A and B when you use the edit-recording function of compact disc.

⑰ **Tape side indicator (A, B)**
Shows which side of the cassette tape (A or B) will be recorded on when you use the edit-recording function of compact disc.

⑱ **Disc indicators (❶ ~ ❸)**
Flashes to show which disc is in play.

⑲ **Multi-display**
Shows the total playing time on the disc, elapsed play time of the current track, the number of tracks, current playing or recording track number, the number of programmed tracks and disc number.

⑳ **Random play indicator (RANDOM)**
Lights during the random play mode of the compact disc.

㉑ **Peak search indicator (PEAK SEARCH)**
In the edit-recording mode, lights when the compact disc changer is automatically scanning the peak level on a disc. When peak search ends, "PEAK" flashes to indicate the peak level of the compact disc.

㉒ **Pause indicator (❚❚)**
Lights when you press the pause button to stop the disc play temporarily.

㉓ **Play indicator (▷)**
Lights when compact disc is in play.

㉔ **Over indicator (➢)**
Lights if there are 16 or more tracks on the disc.

㉕ **Program cancel indicator (CANCEL)**
Lights when you cancel the programmed tracks.

㉖ **Program indicator (PROGRAM)**
Lights during the program play mode of compact disc.

㉗ **Link indicator (LINK)**
Flashes to show the disc link is possible when you use the edit-recording function of compact disc.

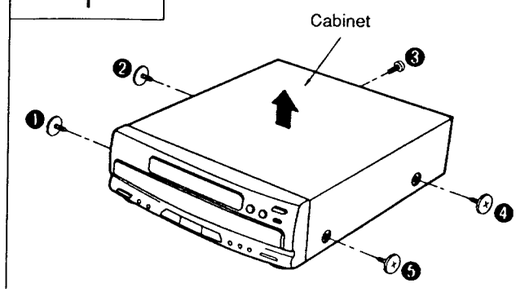
㉘ **Repeat play indicator (⊂⊃)**
Lights during the repeat play mode of the compact disc.

㉙ **Edit mode indicators (J.FIT, ALBUM)**
J.FIT: Lights when you activate the fit edit mode.
ALBUM: Lights when you activate the sequential CD recording edit mode.

■ DISASSEMBLY INSTRUCTIONS

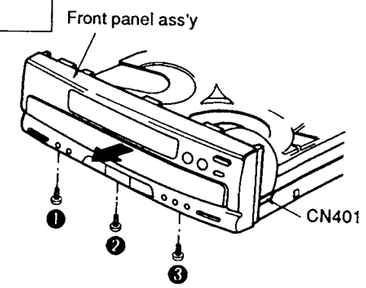
Warning: This product uses a laser diode. Refer to caution statements on page 2.
ACHTUNG: Die lasereinheit nicht zerlegen.
Die lasereilnheit dart nur gegen eine vom hersteller speziferte einheit ausgetauscht werden.
"ATTENTION SERVICER" Some chassis components may have sharp edges. Be careful when disassembling and servicing.

Ref. No. 1	Removal of the Cabinet
Procedure 1	



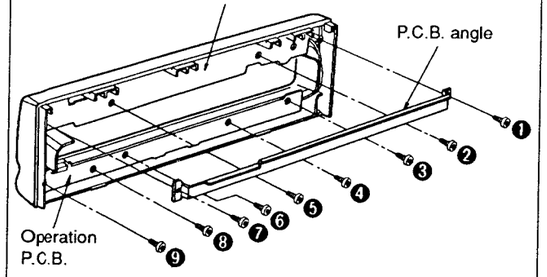
1. Remove the 5 screws (❶~❺).
2. Remove the cabinet in the direction of arrow.

Ref. No. 2	Removal of the Front Panel Ass'y
Procedure 1→2	



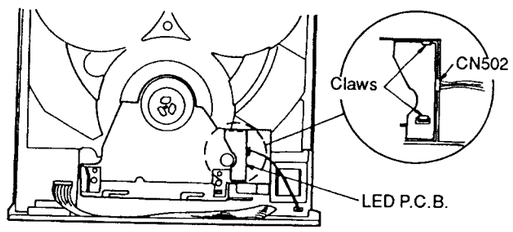
1. Remove the 3 screws (❶~❸).
2. Remove the 1 connector (CN401).
3. Remove the front panel ass'y in the direction of arrow.

Ref. No. 3	Removal of the Operation P.C.B. and FL P.C.B.
Procedure 1→2→3	



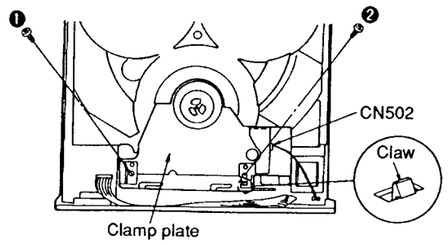
1. Remove the 9 screws (❶~❾).
2. Remove the P.C.B. angle.

Ref. No. 4	Removal of the LED P.C.B.
Procedure 1→4	



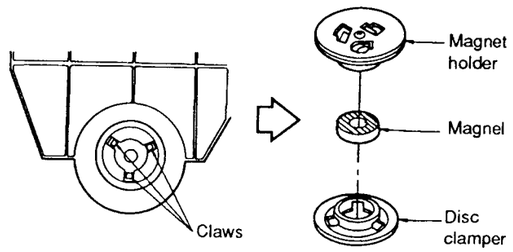
1. Remove the 1 connector (CN502).
2. Release the 2 claws.

Ref. No. 5	Removal of the Clamp Plate
Procedure 1→5	



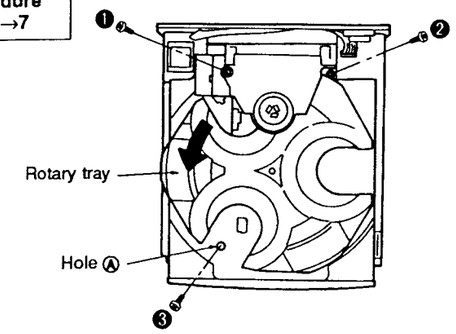
1. Remove the 1 connector (CN 502).
2. Remove the 2 screws (❶~❷).
3. Release the 1 claw.

Ref. No. 6	Removal of the Magnet Holder, Magnet and Disc Clamper
Procedure 1→5→6	

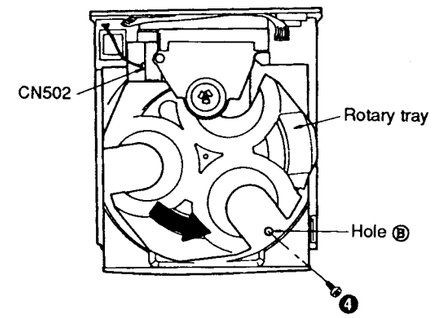


• Release the 3 claws.

Ref. No. 7	Removal of the Tray Ass'y And Loading Unit
Procedure 1→2→7	

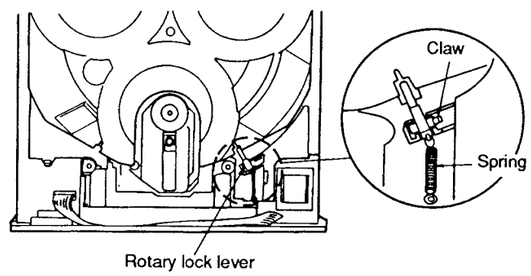


1. Remove the 2 screws (❶, ❷).
2. Rotate the rotary tray to the position that can be confirmed the hole Ⓐ.
3. Remove the 1 screw (❸).

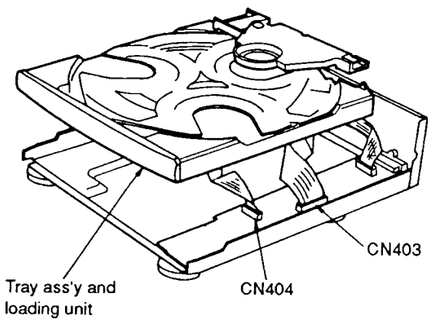


4. Rotate the rotary tray to the further position that can be confirmed the hole Ⓑ.
5. Remove the 1 screw (❹).
6. Remove the 1 connector (CN502).

Ref. No. 8	Removal of the Rotary Lock Lever
Procedure 1→5→8	

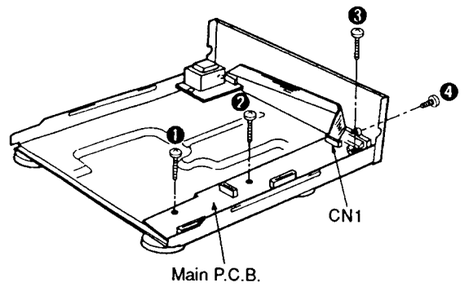


1. Remove the spring.
2. Release the claw.



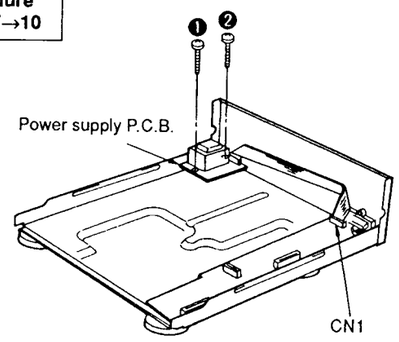
7. Lift up the tray ass'y and the loading unit and then remove the 2 connectors (CN403, CN404).

Ref. No. 9	Removal of the Main P.C.B.
Procedure 1→2→7→9	



1. Remove the 1 connector (CN1).
2. Remove the 4 screws (❶~❹).

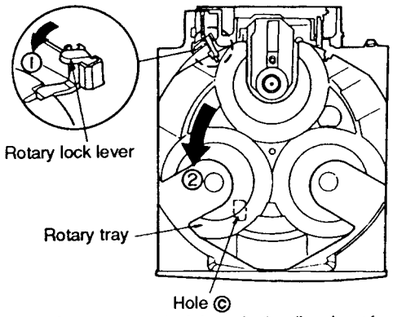
Ref. No. 10	Removal of the Power Supply P.C.B.
Procedure 1→2→7→10	



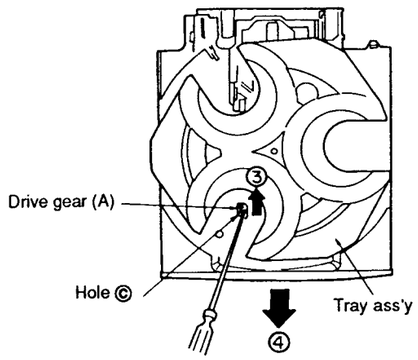
1. Remove the 1 connector (CN1).
2. Remove the 2 screws (❶, ❷).

Ref. No. 11 — Removal of the Loading Unit and Tray Base

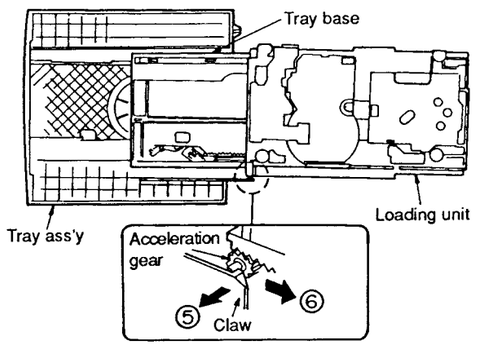
Procedure 1→2→5→7→11



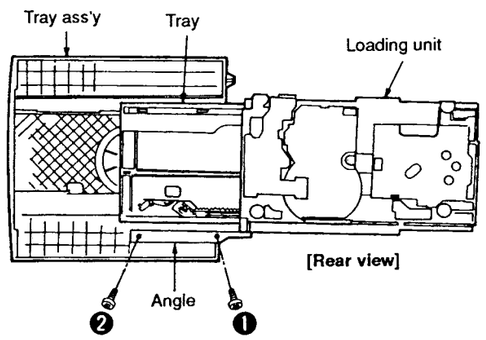
1. While pressing the rotary lock lever in the direction of arrow ① and then rotate the rotary tray to the position that can be confirmed the hole © in the direction of arrow ②.



2. Pressing the drive gear (A) in the direction of arrow ③ with inserting the (–) screwdriver in the hole ©, the tray ass'y moves slightly in the direction of arrow ④. Then, pull the tray ass'y in the direction of arrow ④.



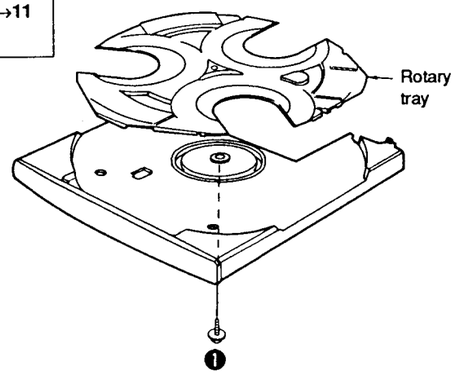
5. Release the claw in the direction of arrow ⑤ and then remove the acceleration gear in the direction of arrow ⑥.



3. Remove the 2 screws (❶, ❷).
4. Remove the angle.

Ref. No. 12 — Removal of the Rotary Tray

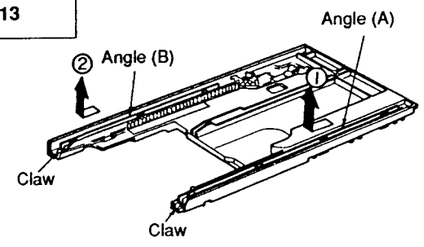
Procedure 1→2→7→11 →12



• Remove the 1 screw (❶).

Ref. No. 13 — Removal of the Angle (A) and Angle (B)

Procedure 1→2→7→11 →13



■ Removal of the angle (A)

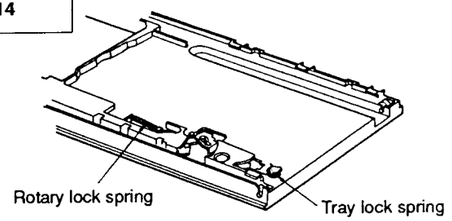
• Release the claw and then remove the angle (A) in the direction of arrow ①.

■ Removal of the angle (B)

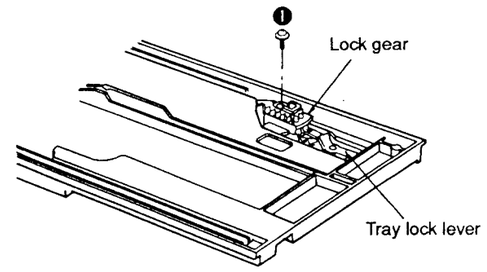
• Release the claw and then remove the angle (B) in the direction of arrow ②.

Ref. No. 14 — Removal of the Tray Lock Lever and Lock Gear

Procedure 1→2→7→11 →14



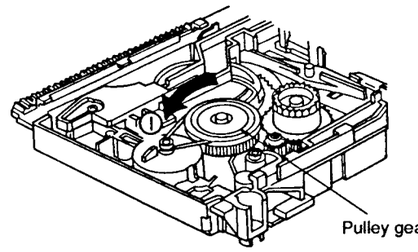
1. Remove the rotary lock spring and tray lock spring.



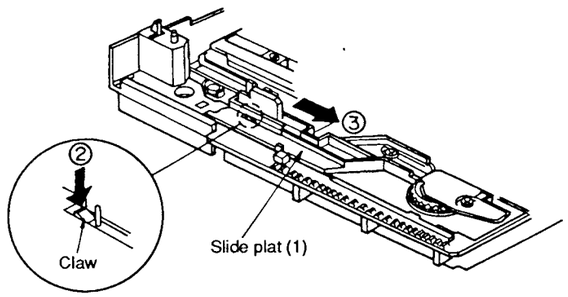
2. Remove the 1 screw (❶).

Ref. No. 15 — Removal of the Traverse Deck and Conversion Lever

Procedure 1→2→7→11 →15



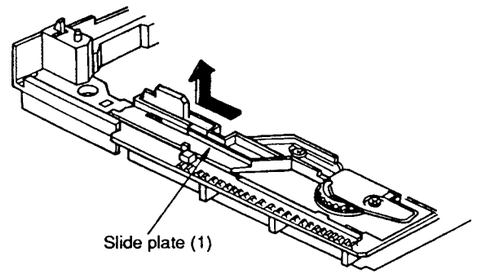
1. Rotate the pulley gear to full position in the direction of arrow ①.



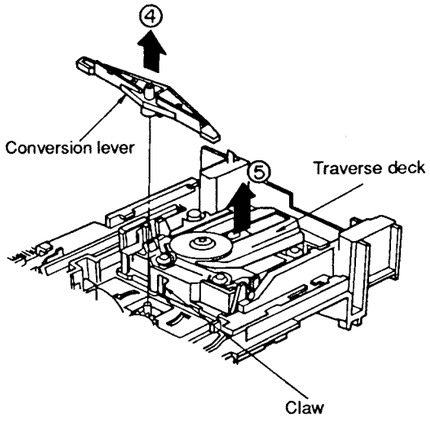
2. Push the claw in the direction of arrow ②, and then move the slide plate (1) in the direction of arrow ③.

Ref. No. 16 — Removal of the Slide Plate (1)

Procedure 1→2→7→11 →15→16



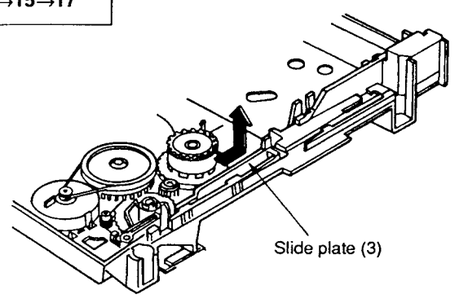
• Remove the slide plate (1) in the direction of arrow.



3. Remove the conversion lever in the direction of arrow ④.
4. Release the claw and then remove the traverse deck in the direction of arrow ⑤.

Ref. No. 17 — Removal of the Slide Plate (3)

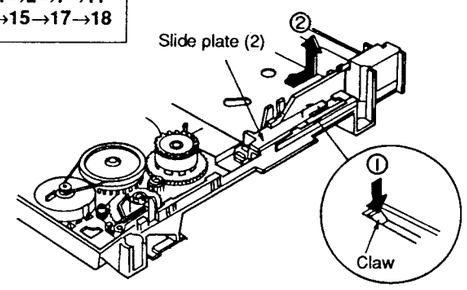
Procedure
1→2→7→11
→15→17



• Remove the slide plate (3) in the direction of arrow.

Ref. No. 18 — Removal of the Slide Plate (2)

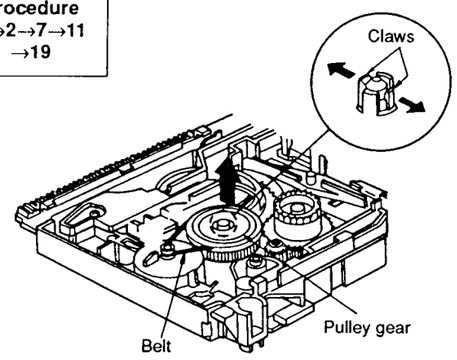
Procedure
1→2→7→11
→15→17→18



• Push the claw in the direction of arrow ①, and then remove the slide plate (2) in the direction of arrow ②.

Ref. No. 19 — Removal of the Pulley Gear

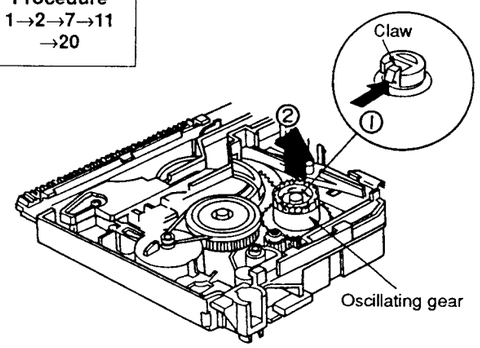
Procedure
1→2→7→11
→19



1. Remove the belt.
2. Release the 2 claws and then remove the pulley gear in the direction of arrow.

Ref. No. 20 — Removal of the Oscillating Gear

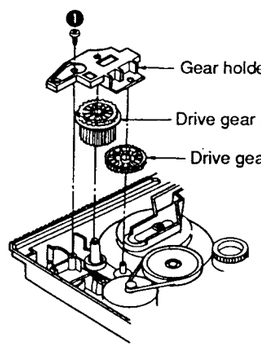
Procedure
1→2→7→11
→20



• Release the claw in the direction of arrow ① and then remove the oscillating gear in the direction of arrow ②.

Ref. No. 21 — Removal of the Gear Holder, Drive Gear (A) and Drive Gear (B)

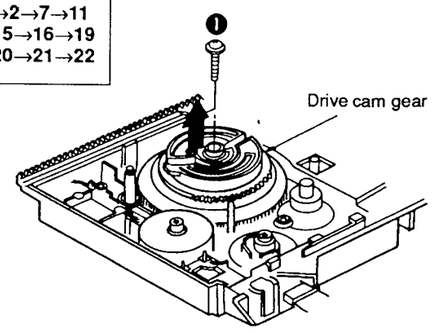
Procedure
1→2→7→11
→21



1. Remove the 1 screw (❶).
2. Remove the gear holder, drive gear (A) and drive gear (B).

Ref. No. 22 — Removal of the Drive Cam Gear

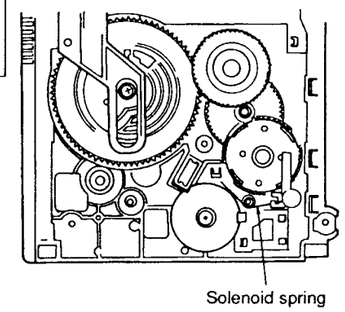
Procedure
1→2→7→11
→15→16→19
→20→21→22



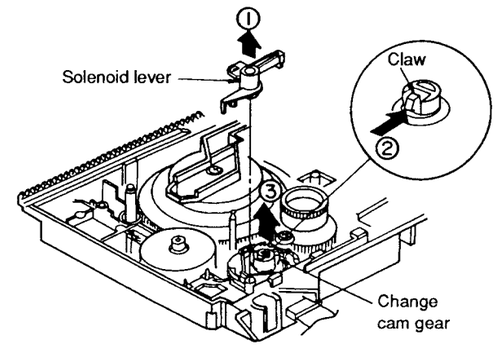
1. Remove the 1 screw (❶).
2. Remove the drive cam gear in the direction of arrow.

Ref. No. 23 — Removal of the Change Cam Gear

Procedure
1→2→7→11
→15→17→19
→23



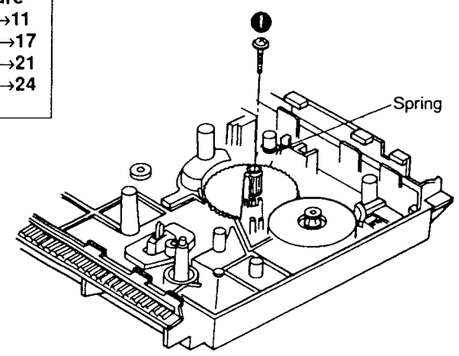
1. Remove the solenoid spring and then remove the solenoid lever in the direction of arrow ①.



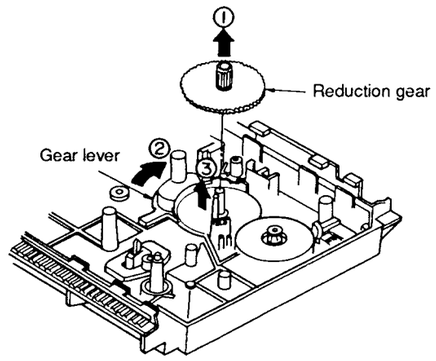
2. Release the claw in the direction of arrow ② and then remove the change cam gear in the direction of arrow ③.

Ref. No. 24 — Removal of the Reduction Gear and Gear Lever

Procedure
1→2→7→11
→15→16→17
→19→20→21
→22→23→24



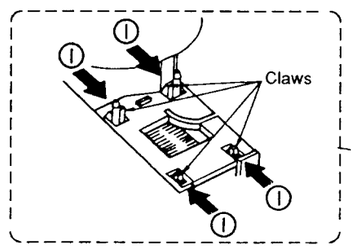
1. Remove the spring.
2. Remove the 1 screw (❶).



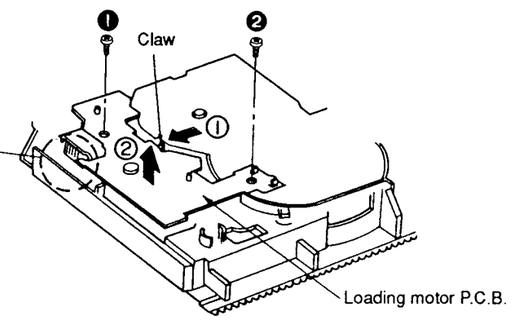
3. Remove the reduction gear in the direction of arrow ①.
4. Remove the gear lever in the direction of arrow ②, ③.

Ref. No. 25 — Removal of the Loading Motor P.C.B.

Procedure
1→2→7→11
→15→16→17
→18→19→20
→21→22→23
→25



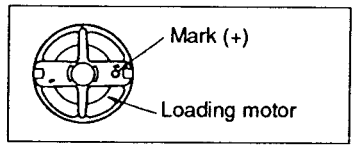
1. Remove the 2 screws (❶, ❷).
2. Release the 5 claws in the direction of arrow ①.

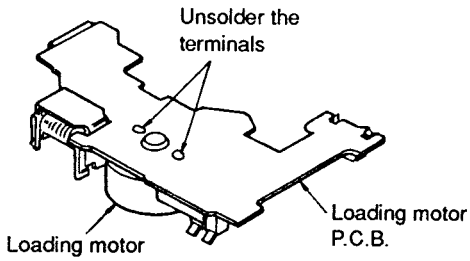


3. Remove the loading motor P.C.B. in the direction of arrow ②.

Ref. No. 26	Removal of the Loading Motor

Prosedure
1→2→7→11
→15→16→17→18
→19→20→21→22
→23→25→26

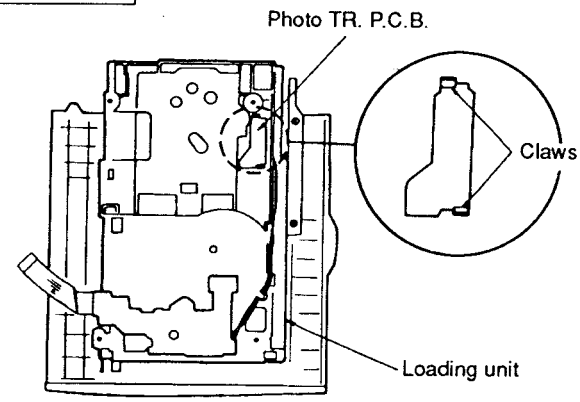




• Unsolder the terminals of the loading motor.

Ref. No. 27	Removal of the Photo TR. P.C.B.

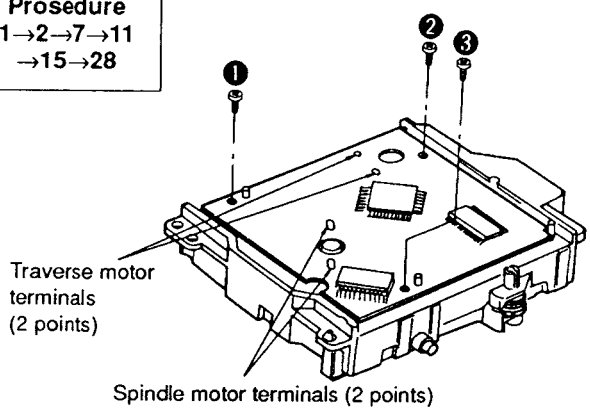
Prosedure
1→2→7→27



• Release the 2 claws.

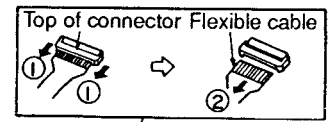
Ref. No. 28	Removal of the Servo P.C.B.

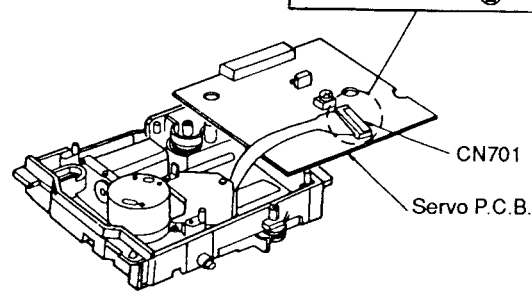
Prosedure
1→2→7→11
→15→28



1. Remove the 3 screws (❶~❸).
2. Unsolder the spindle motor terminals (2 points).
3. Unsolder the traverse motor terminals (2 points).

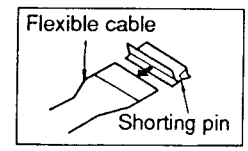
*Push the top of the connector in the direction of arrow ①, and then pull out the flexible cable in the direction of arrow ②.





4. Remove the connector (CN701).

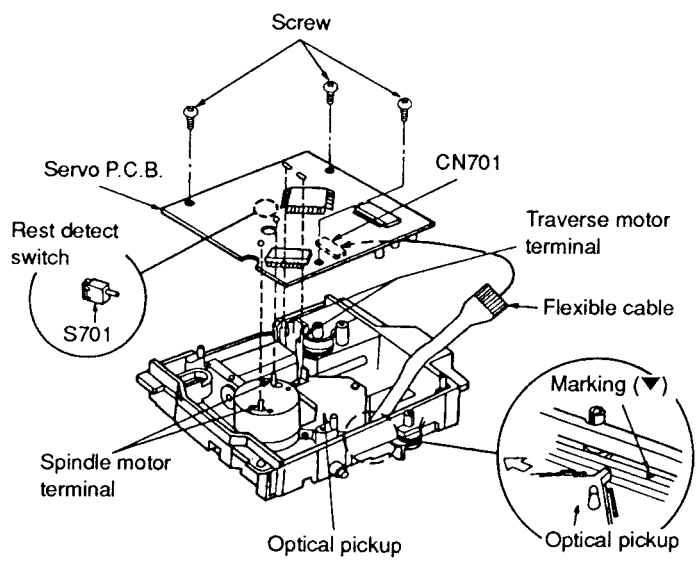
Note: Insert a shorting pin into the traverse unit flexible cable. (Refer to "handling precautions for traverse deck" on page 2.)



■ INSTALLING SERVO P.C.B.

1. Before installing the servo P.C.B., move the optical pickup toward the outer edge from the mark "▲". [Otherwise, the rest detect switch (S701) mounted on the servo P.C.B. may be damaged.]
2. Connect the flexible cable to the connector (CN701).
3. Install the servo P.C.B. in the traverse deck unit with the three screws.
4. Solder the two terminals of the traverse motor and the two terminals of the spindle motor.

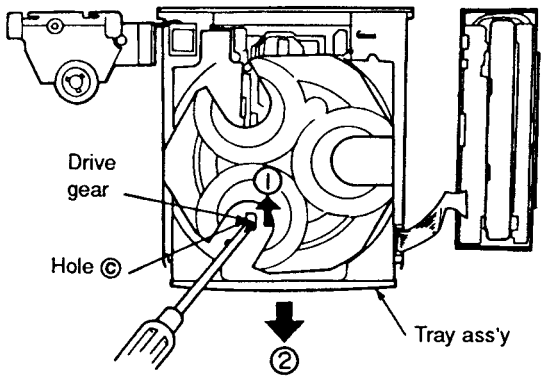
Note: Connect the flexible cable to the connector (CN701) firmly.
Tighten the 3 screws before soldering the terminals.



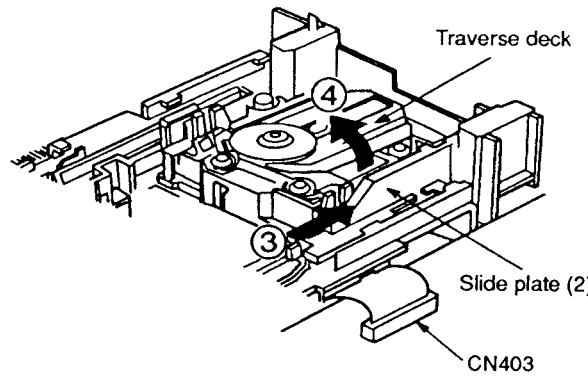
■ HOW TO CHECK THE SERVO AND MAIN P.C.B.

• Check the servo P.C.B.

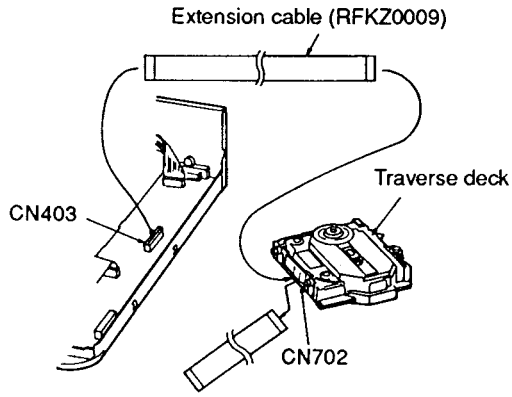
1. Remove the cabinet. (See Ref.No.1 of the disassembly instructions.)
2. Remove the front panel ass'y. (See Ref.No. 2 of the disassembly instructions.)
   Note: Take care not to remove the connector (CN 401).
3. Remove the clamp plate. (See Ref.No.5 of the disassembly instructions.)
   Note: Take care not to remove the connector (CN 502).
4. Remove the magnet holder, magnet and disc clamper. (See Ref.No.6 of the disassembly instructions.)



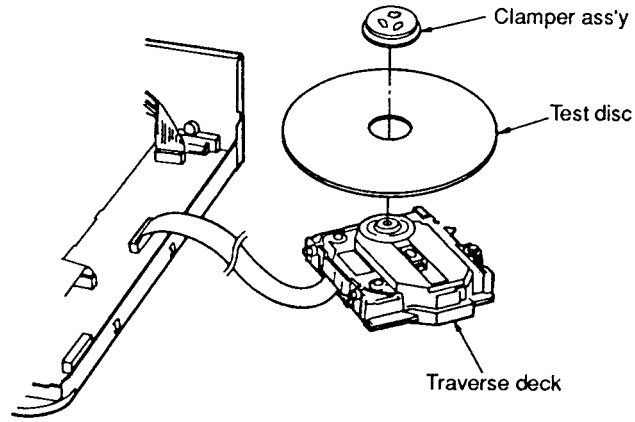
5. Pressing the lock gear in the direction of arrow ① with inserting the (–) screwdriver in the hole ©, the tray ass'y moves slightly in the direction of arrow ②. Then, pull out the tray ass'y in the direction of arrow ②.



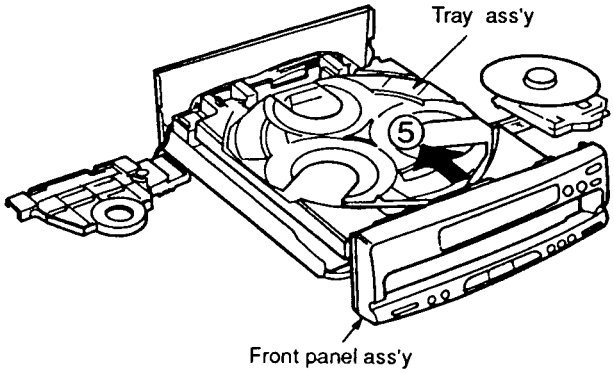
6. Remove the connector (CN403).
7. Pressing the slide plate (2) in the direction of arrow ③, and then remove the traverse deck in the direction of arrow ④.



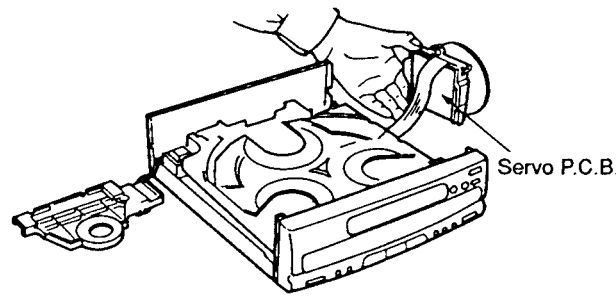
8. Substitute the serviceable extemsion cable for the FPC between the connector (CN403) on main P.C.B. and the connector (CN702) on servo P.C.B.



9. Place the test disc and secure it by using the clamper ass'y.

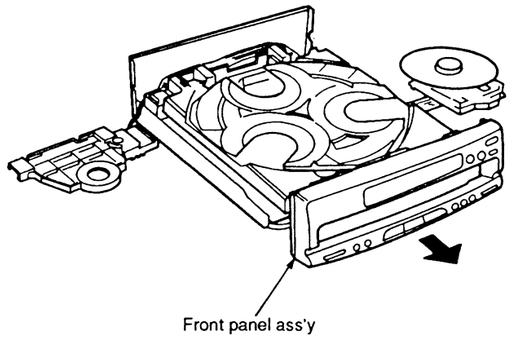


10. Restove the tray ass'y in the direction of arrow ⑤.
11. Reinstall the front panel ass'y to the main unit.

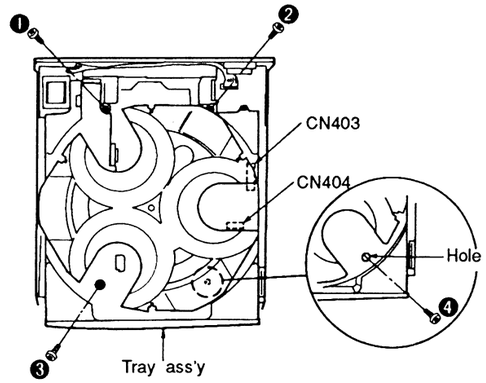


12. When checking the soldered surface of the servo P.C.B., do as shown above.

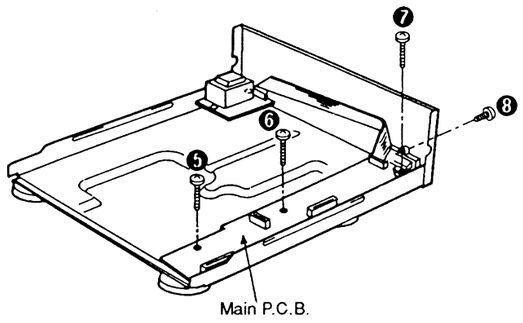
• Check the main P.C.B.



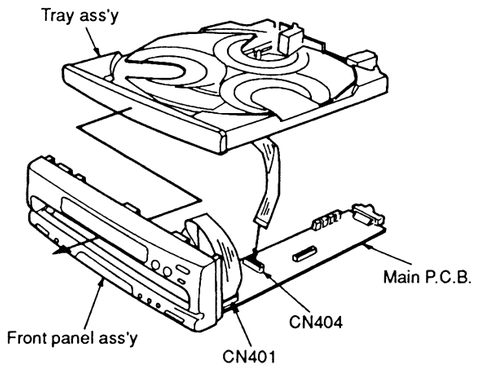
1. After checking the servo P.C.B., remove the front panel ass'y in the direction of arrow.



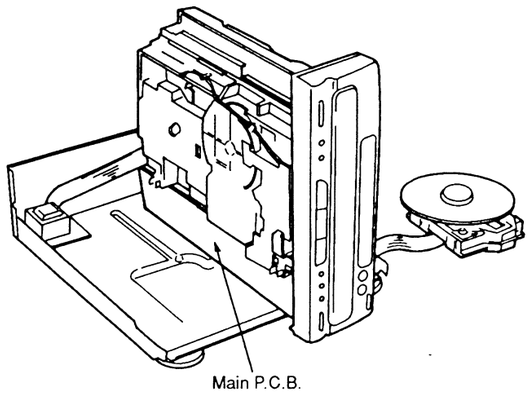
2. Remove the 4 screws (❶~❹) and then remove the tray ass'y.
3. Remove the 2 connector (CN403. CN404).



4. Remove the 4 screws (❺~❽).
5. Remove the main P.C.B.



6. Reinstall the front panel ass'y to main P.C.B.
7. Reinstall the tray ass'y to front panel ass'y.
8. Connect the 2 FPC board (CN401. CN404).



9. When checking the soldered surface of the main P.C.B., do as shown above.

■ INSTALLATION OF THE LOADING COMPONENTS

1. Install the gear lever on the loading base and then slide the gear lever in the direction of arrow ①. (See Fig.1.)
2. Install the reduction gear and secure it with a screw. (See Fig.1.)
3. Install the gear lever spring to the boss (A). (See Fig.1.)
4. Install the change cam gear. (See Fig.2.)
   Note: Align the tip of the bold arrow marked with " ↑ " on the change cam gear with the axis of the reduction gear shaft.
5. Install the solenoid lever. (See Fig.3.)
   Note: Align the slot of the solenoid lever with the solenoid core.
6. Install the solenoid spring to the boss (B). (See Fig.3.)
7. Align the hole (A) of the drive cam gear with the switch, and then insert the drive cam gea. (See Fig.4)
8. Secure the drive cam gear with a screw. (See Fig.4.)
   Note: In case that the drive cam gear is inserted into the holes except the hole (A) of the drive cam gear, the switch may be damaged.
9. Install the drive gear (B), the drive gear (A), the oscillating gear ass'y and the pulley gear. (See Fig.5)

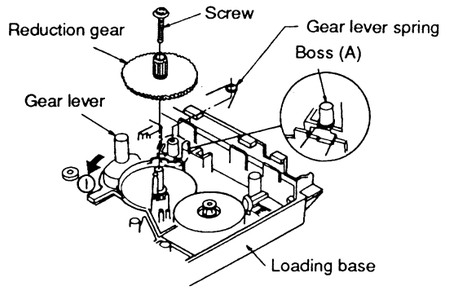


Fig.1

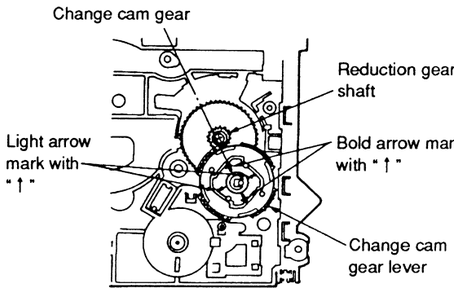


Fig.2

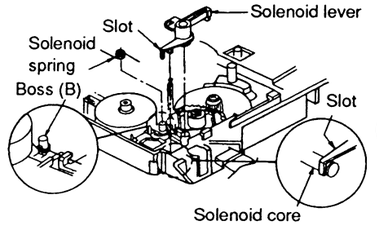


Fig.3

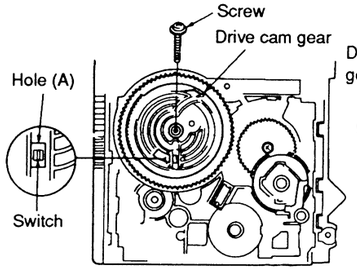


Fig.4

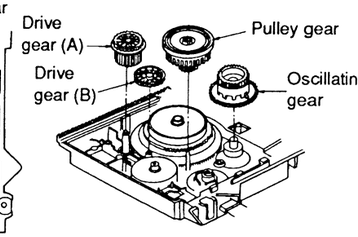


Fig.5

10. Install the gear holder and secure it with a screw. (See Fig.6.)
11. Install the belt. (See Fig. 6.)
12. Rotate the pulley gear in the direction of arrow ② and then rotate the pulley gear to full position in the direction of arrow ③ when the oscillating gear stops.
13. Rotate the drive cam gear so that the slot (A) of the drive cam gear is put into a given position as shown in fig. 7.

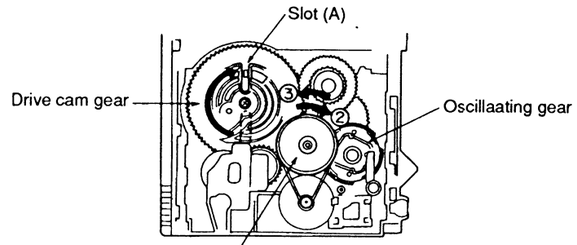


Fig.7

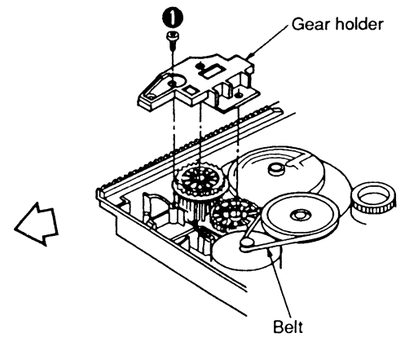


Fig.6

■ INSTALLATION OF THE LOADING COMPONENTS

1. Install the gear lever on the loading base and then slide the gear lever in the direction of arrow ①. (See Fig.1.)
2. Install the reduction gear and secure it with a screw. (See Fig.1.)
3. Install the gear lever spring to the boss (A). (See Fig.1.)
4. Install the change cam gear. (See Fig.2.)
   Note: Align the tip of the bold arrow marked with " ↑ " on the change cam gear with the axis of the reduction gear shaft.
5. Install the solenoid lever. (See Fig.3.)
   Note: Align the slot of the solenoid lever with the solenoid core.
6. Install the solenoid spring to the boss (B). (See Fig.3.)
7. Align the hole (A) of the drive cam gear with the switch, and then insert the drive cam gea. (See Fig.4)
8. Secure the drive cam gear with a screw. (See Fig.4.)
   Note: In case that the drive cam gear is inserted into the holes except the hole (A) of the drive cam gear, the switch may be damaged.
9. Install the drive gear (B), the drive gear (A), the oscillating gear ass'y and the pulley gear. (See Fig.5)

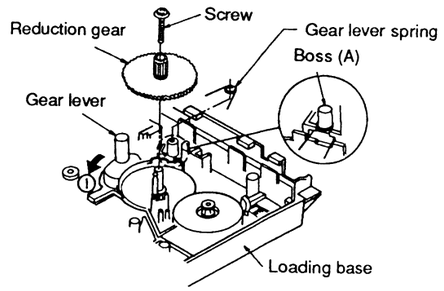


Fig.1

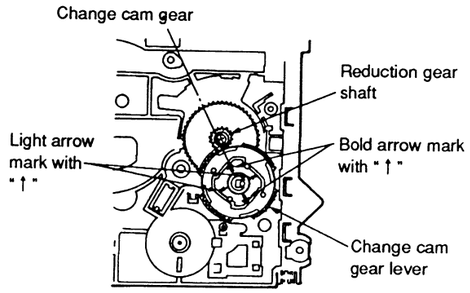


Fig.2

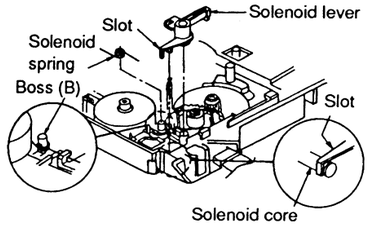


Fig.3

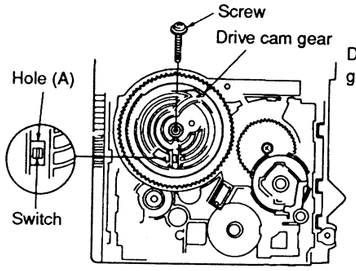


Fig.4

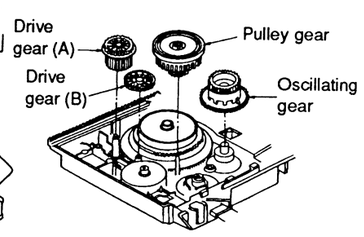


Fig.5

10. Install the gear holder and secure it with a screw. (See Fig.6.)
11. Install the belt. (See Fig. 6.)
12. Rotate the pulley gear in the direction of arrow ② and then rotate the pulley gear to full position in the direction of arrow ③ when the oscillating gear stops.
13. Rotate the drive cam gear so that the slot (A) of the drive cam gear is put into a given position as shown in fig. 7.

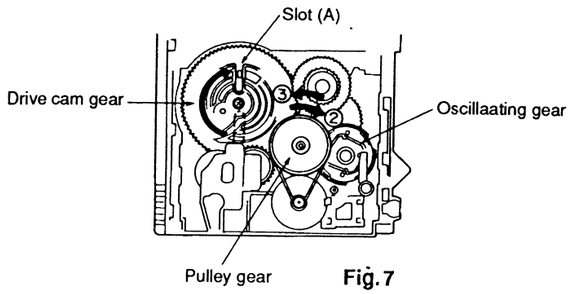


Fig.7

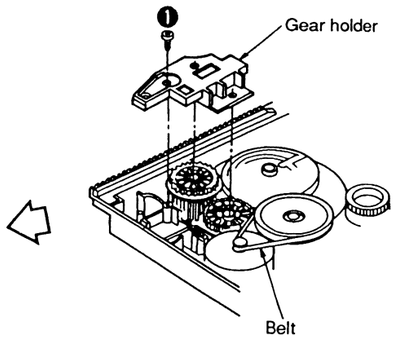


Fig.6

14. Install the slide plate (1) , the slide plate (2) and the slide plate (3). (See Fig.8.)
15. Press the claw in the direction of arrow ④ and then slide the slide plate (1) in the loading unit in the direction of ⑤. (See Fig.9.)
16. Install the traverse deck and the conversion lever. (See Fig.9.)
17. Slide the slide plate (1) in the loading unit in the direction of arrow ⑥. (See Fig.10.)
18. Rotate the pulley gear in the direction of arrow ⑦ so that the slot (A) of the drive cam gear is put into a given position as shown in fig.10. (See Fig.10.)

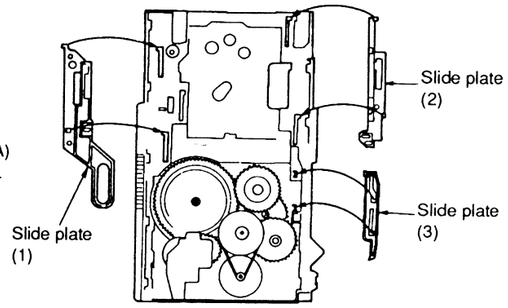


Fig.8

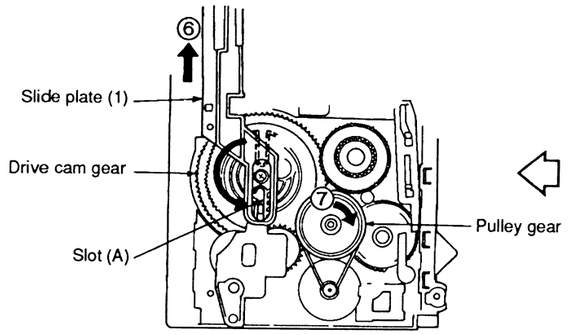


Fig.10

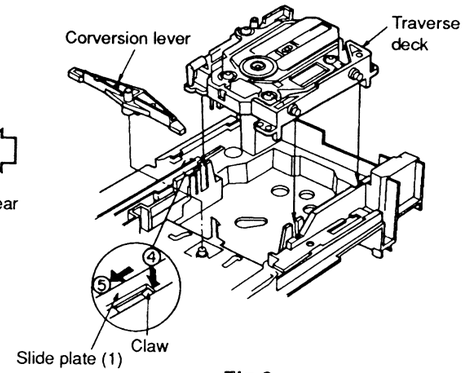


Fig.9

■ INSTALLATION OF THE TRAY BASE AND THE TRAY ASS'Y

1. Install the loading unit on the bottom board ass'y and secure it with 4 screw (❶~❹). (See Fig. 1.)
2. Install the tray base on the loading unit. (See Fig. 1)
3. After sliding the tray base in the direction of arrow ①, draw the tray base gradually in the direction of arrow ②. (See Fig. 2)
   Slide the tray base until the tray base stops.
4. Holding the tray base, install the tray ass'y on the tray base and feed the tray ass'y slowly. (See Fig. 3)
5. Afer engaging the acceleration gear, release the tray base which is held and feed the tray ass'y. (See Fig. 3)

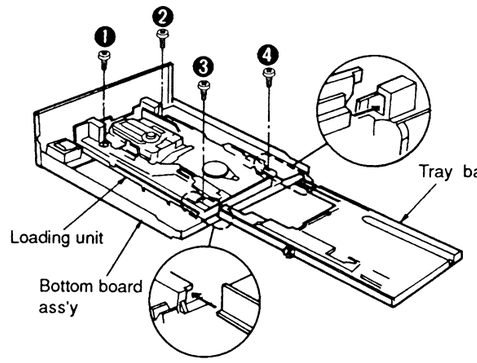


Fig.1

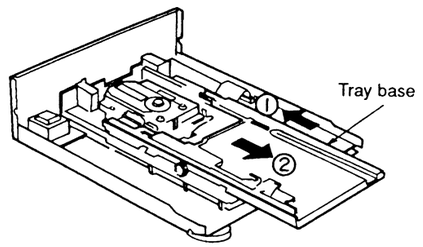


Fig.2

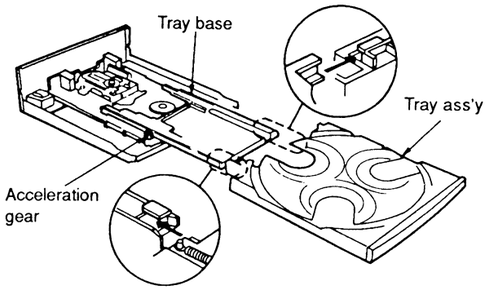
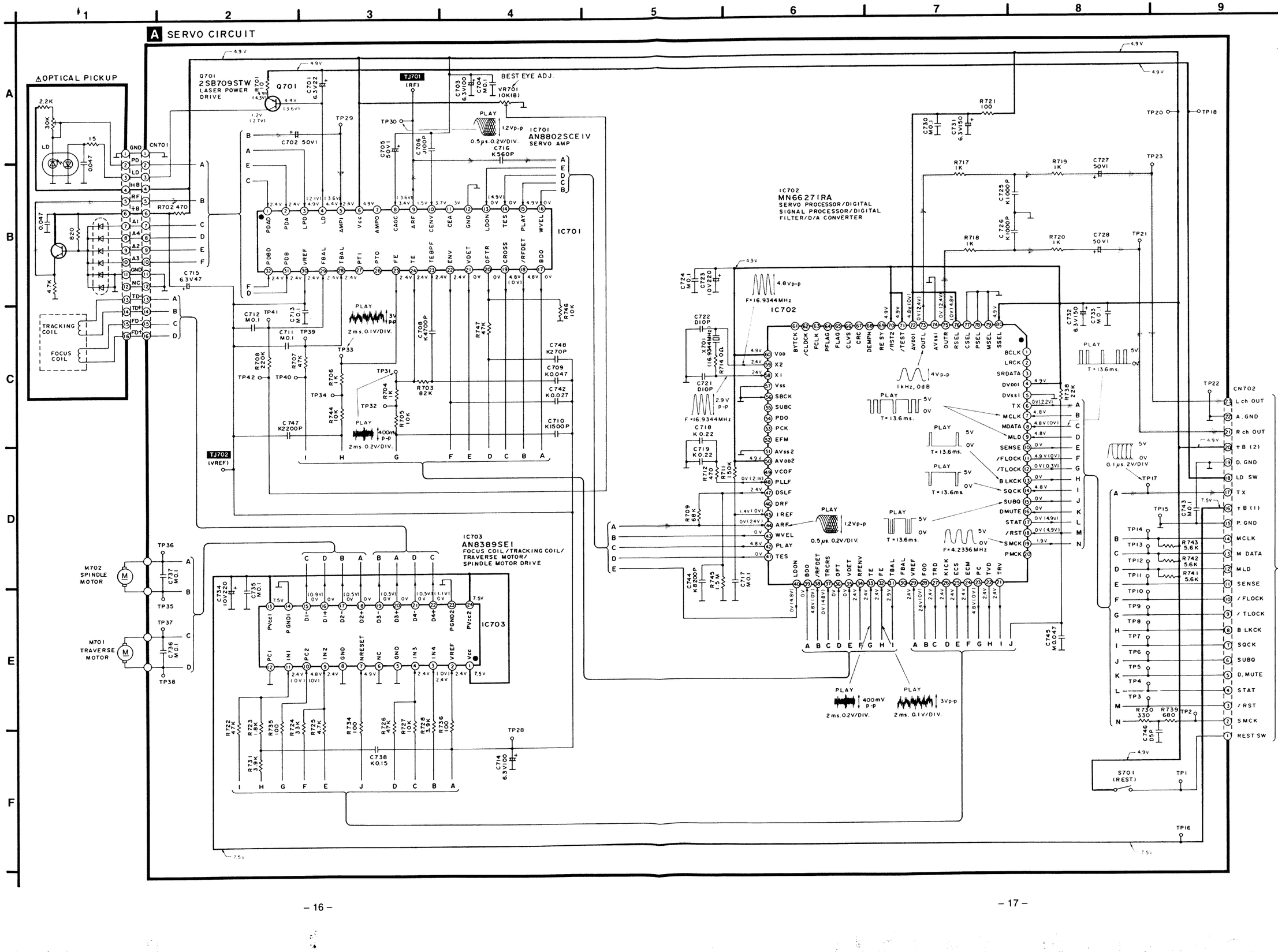


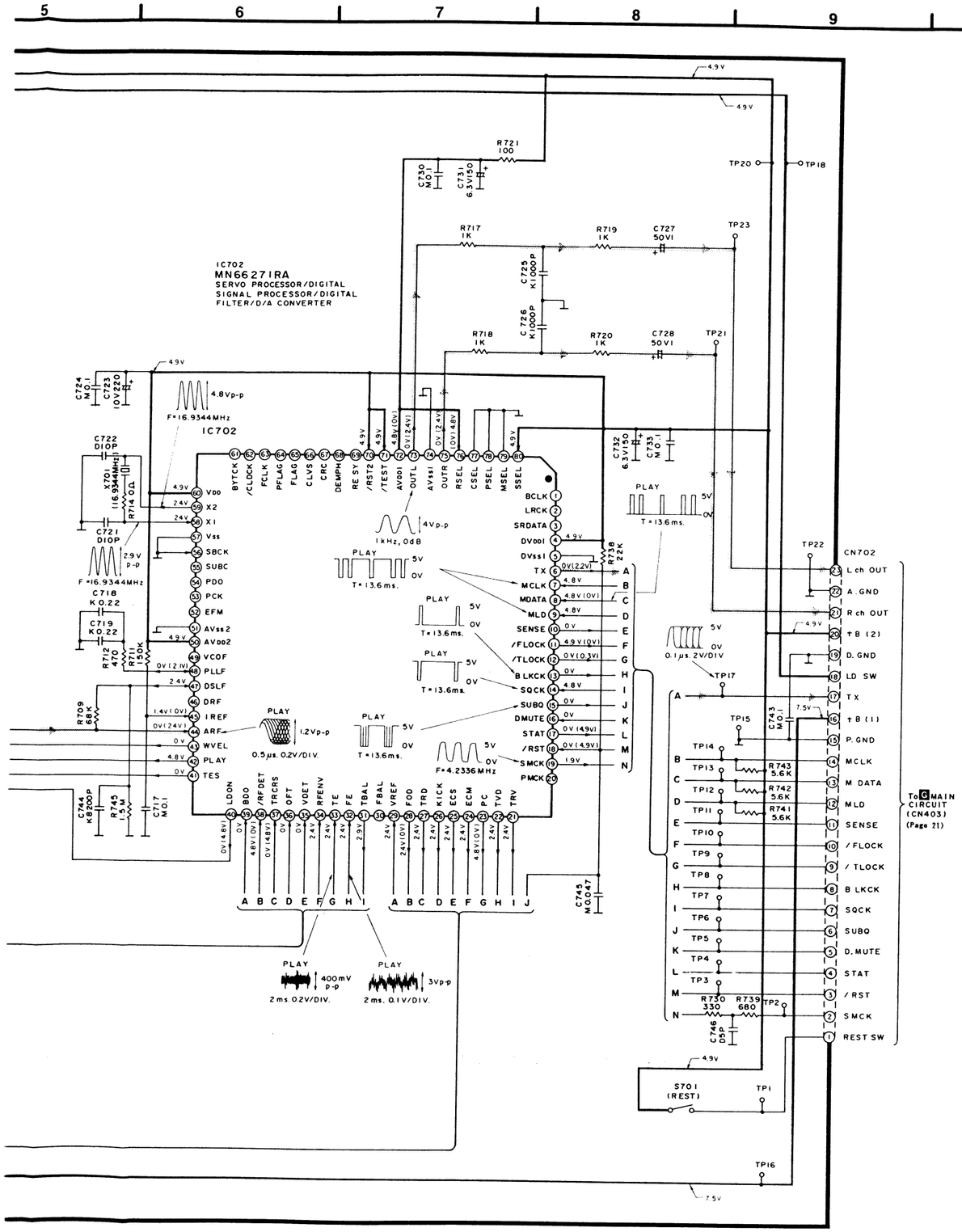
Fig.3

SL-CH555

■ SCHEMATIC DIAGRAM •OPTICAL PICKUP AND SERVO CIRCUIT (Parts list on pages 41~43.)



.1~43.)



Notes:

- •S501 : Traverse deck position detect switch
- •S502 : Disc tray full open detect switch
- •S503 : Disc tray half open detect switch
- •S601 : Display switch (DISPLAY)
- •S602 : Fit edit switch (J. FIT)
- •S603 : Sequential CD recording switch (ALBUM)
- •S604 : Repeat switch (REPEAT)
- •S605 : Random play switch (RANDOM)
- •S606 : Disc switch (DISC 3)
- •S607 : Disc switch (DISC 2)
- •S608 : Disc switch (DISC 1)
- •S609 : Search switch (◀◀)
- •S610 : Search switch (▶▶)
- •S611 : Skip switch (⏮)
- •S612 : Skip switch (⏭)
- •S613 : Pause switch (❚❚ PAUSE)
- •S614 : Play switch (▶)
- •S615 : Stop switch (■)
- •S616 : Loading drawer open/close switch (⏏ OPEN/CLOSE)
- •S701 : Rest switch

•Indicated voltage values are the standard values for the unit measured by the DC electronic circuit tester (high-impedance) with the chassis taken as standard.
Therefore, there may exist some errors in the voltage values, depending on the internal impedance of the DC circuit tester.

No mark : CD STOP ( ) : CD PLAY (1 kHz, L+R, 0 dB)

•Important safety notice:
Components identified by ⚠ mark have special characteristics important for safety.
Furthermore, special parts which have purposes of fire-retardant (resistors), high-quality sound (capacitors), low-noise (resistors), etc. are used. When replacing any of components, be sure to use only manufacturer's specified parts shown in the parts list.

Caution!
IC and LSI are sensitive to static electricity.
Secondary trouble can be prevented by taking care during repair.
- •Cover the parts boxes made of plastics with aluminum coil.
- •Ground the soldering iron.
- •Put a conductive mat on the work table.
- •Do not touch the legs of IC or LSI with the fingers directly.

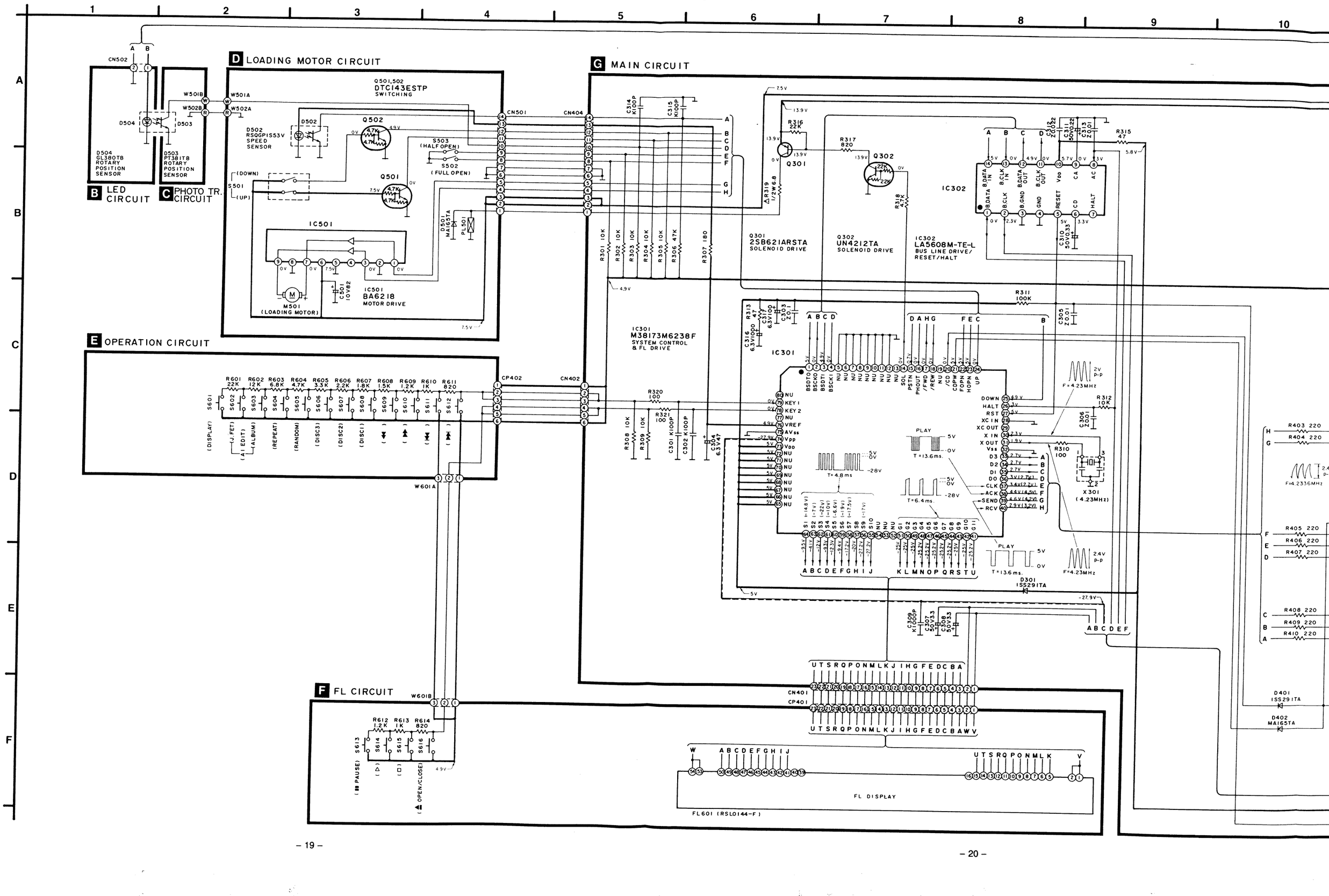
•This schematic diagram may be modified at any time with the development of new technology.

•The supply part number is described alone in the replacement parts list.

Ref. No	Production Parts No.	Supply Parts No.
IC1	LM2940T5M	LM2940T5
IC801	BA4558FT1	SVIBA4558F

——— : Positive voltage line
– – – – : Negative voltage line
▒▒▒ : CD signal line

■ SCHEMATIC DIAGRAM •LED, PHOTO TR., FL, MAIN AND POWER SUPPLY CIRCUIT (Parts list on pages 41~43.)



10 11 12 13 14 15 16 17 18 19

To A SERVO CIRCUIT(CN7021) (Page 17)

CN403 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23

R402 56 R401 1K A B C D E F G H I J K L M

13.9V 4.9V 7.5V

C401 K1000P C402 Z0.01 C403 K1000P C404 K1000P C405 Z0.01

A B

IC401 LC66304A4935 SYSTEM CONTROL

PLAY 5V 0V T=13.6ms.

M L K G F D E C B A H I J

R421 4.7K R422 1K R423 4.7K

IC401 NU M CLK M DATA MLD BLKCK SOCK NC D MUTE SUBQ STAT SERVO RST TEST SW

/RECV /SEND TEST Vss OSCI NC NC OSC2 /RST ACK CLK DATA 0 DATA 1 DATA 2 DATA 3 NU NU NC EMP MUTE RELAY NU NU NU CS

/TLOCK /FLOCK SENSE /OPEN /CLOSE NC NC CLOSE SW OPEN SW Vdd NU NU

F=4.2336MHz 2.4V p-p

R403 220 R404 220 R405 220 R406 220 R407 220 R408 220 R409 220 R410 220

R411 4.7K R412 4.7K R413 4.7K R414 4.7K R415 4.7K R416 4.7K R417 4.7K R418 4.7K

R419 100K R420 10K C406 Z0.1

D401 1SS29 ITA D402 MA165TA

L401

Q2~5 2SD2037EFTA REGULATOR

Q2 Q3 Q4 Q5 (12.9V) 13.4V 8.1V

R10 1.2 R11 1.2 R26 1.2 R27 1.2 R13 1/4W 6.8 R12 1/2W 270

D18 1SR35200TB D14 MA4082LTA C11 K1000P C10 10V220 C102 10V100

IC1 LM2940T5M REGULATOR

D6 MA165TA D8 MA165TA R3 4.7K D2 MA167TA R2 5.6K D1 MA167TA R1 5.6K

Q7 2SB621ARSTA POWER SUPPLY

D10 MA4051MTA R5 1/6W 0.15 D3 1SR35200TB D4 1SR35200TB D5 1SR35200TB

L1 L2 L3 3.3μH L4 3.3μH C3 Z0.01 C4 Z0.01

D12 MA165TA C5 K1000P D11 MA165TA Q6 R6 470 R7 470

Q8 2SC3311AOSTA REGULATOR

R8 1/4W 6.8 C1 16V2200 C2 25V100 R20 150 R19 3.3K R22 3K R23 150

Q6 2SC3311AQSTA POWER SUPPLY CONTROL

C16 6.3V47 C17 K1000P C18 6.3V47 C19 6.3V47 C20 6.3V47 C21 K1000P

D16 MA4056MTA D17 MA4056MTA

Q10 UN4112TA SWITCHING CONT.

Q9 2SA1309AOSTA REGULATOR

R21 10K R24 10K

Q10 22K 22K

IC801 BA4558FTI L.P. FILTER AMP

C801 K330P C802 K330P C803 K120P C804 K120P C805 25V22 C806 25V22

R801 100K R802 100K R803 22K R804 22K R805 22K R806 22K R807 47K R808 47K R809 3.3K R810 3.3K

IC802 TC4066BFTPI SWITCHING

R811 100K R812 100K R813 100K R814 100K R815 1K R816 1K C807 K100P C808 K100P

(Lch) (Rch) Vdd Vss

H POWER SUPPLY CIRCUIT

W102 W101 CN1A CN1B A B C D E F

R105 10 R106 12 R107 270 R101 10 R102 120 R103 470 R104 5.6K

Q101 -42.1V -27.9V -28.4V

D101 MA4051MTA D102 MA4270HTA D103 MA185TA

C101 K1000P C102 10V10 C103 Z1000P

PT101 AC 11.6V AC 11.6V AC 7.2V AC 41.1V

Q101 2SB1238OSTV6 REGULATOR

POWER SUPPLY POINT AC GND

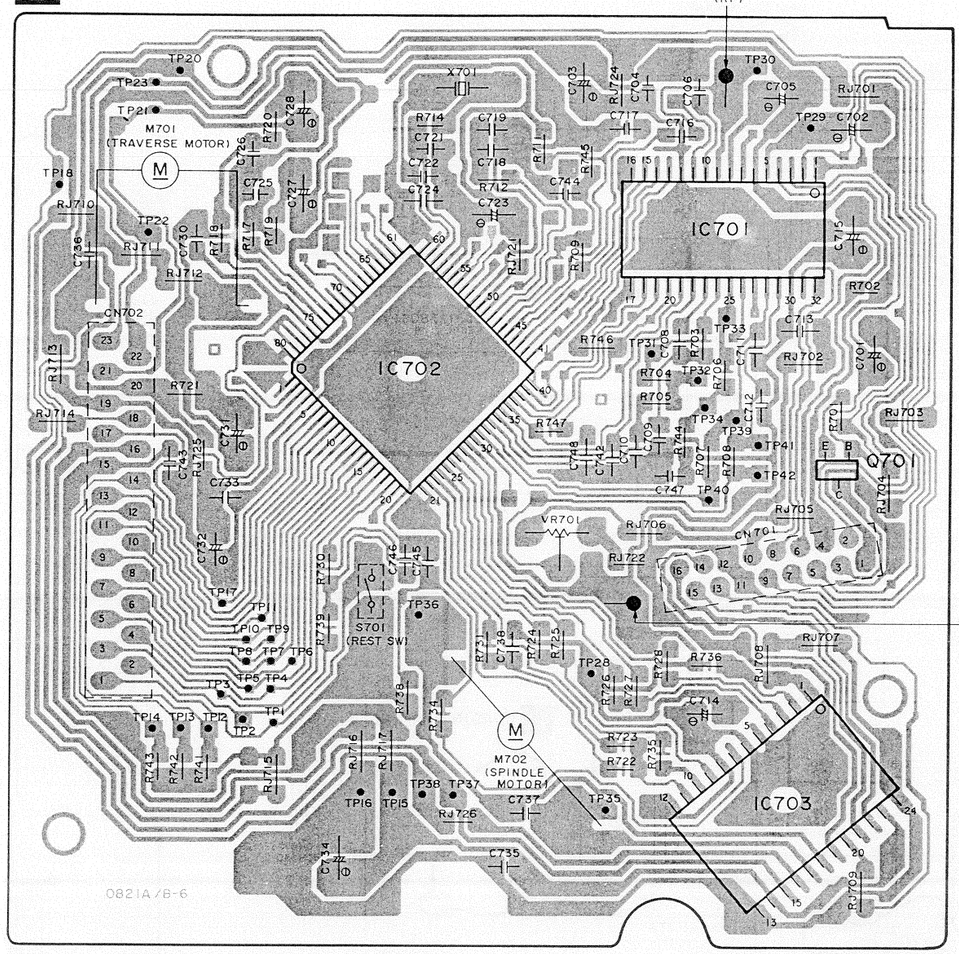
JK801 1 AC 2 BUS CLK 3 CT GND 4 BUS DATA 5 AC 6 DC GND 7 — 8 — 9 — 10 — 11 — 12 — 13 Rch LINE OUT 14 A.GND 15 Lch LINE OUT

To SA-CH655 RS-CH550

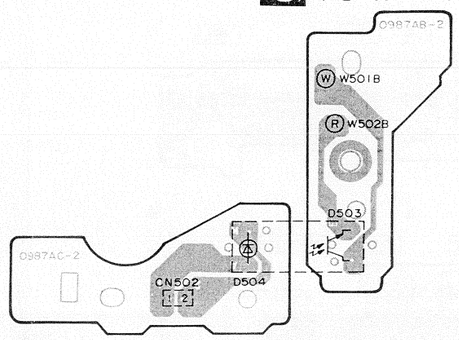
E1

■ PRINTED CIRCUIT BOARD DIAGRAM

A SERVO P.C.B. (REPI391A-N)

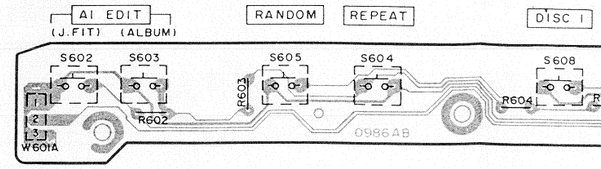


C PHOTO TR. P.C.B. (REPI557A-N)

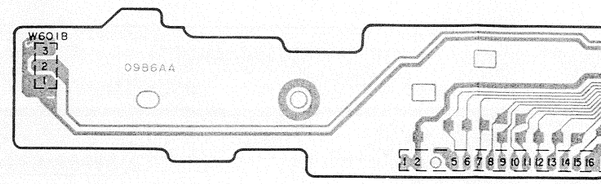


B LED P.C.B. (REPI557A-N)

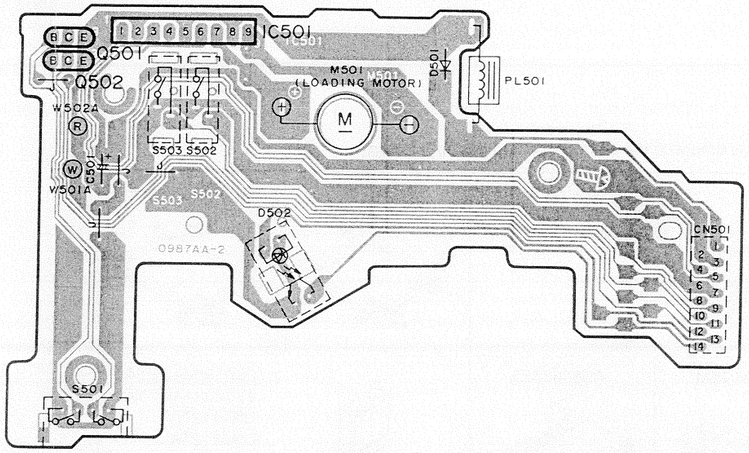
E OPERATION P.C.B. (REPI555A-S)



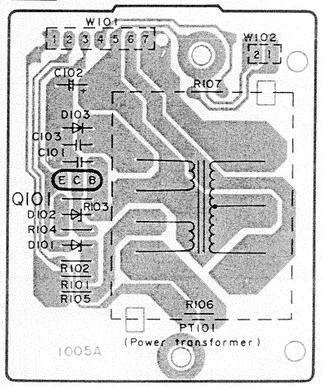
F FL P.C.B. (REPI555A-S)



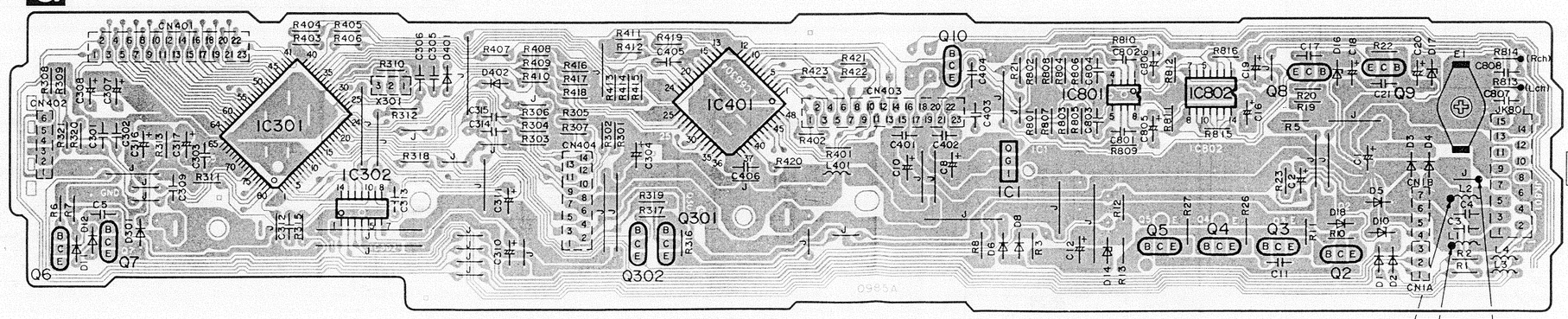
D LOADING MOTOR P.C.B. (REPI557A-N)



H POWER SUPPLY P.C.B. (REPI556A-P)



G MAIN P.C.B. (REPI554A-M)



SA-CH655
RS-CH550

AC AC GND
POWER SUPPLY POINT

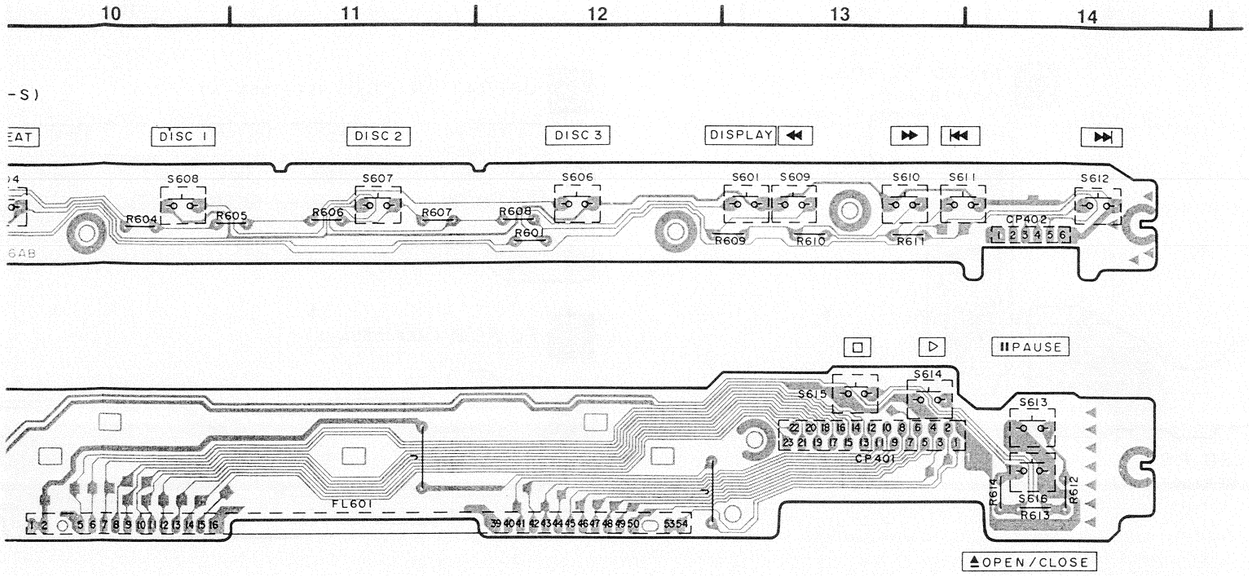
•This printe

BA455

LC6630

2SB1238

Ca
A
Anode

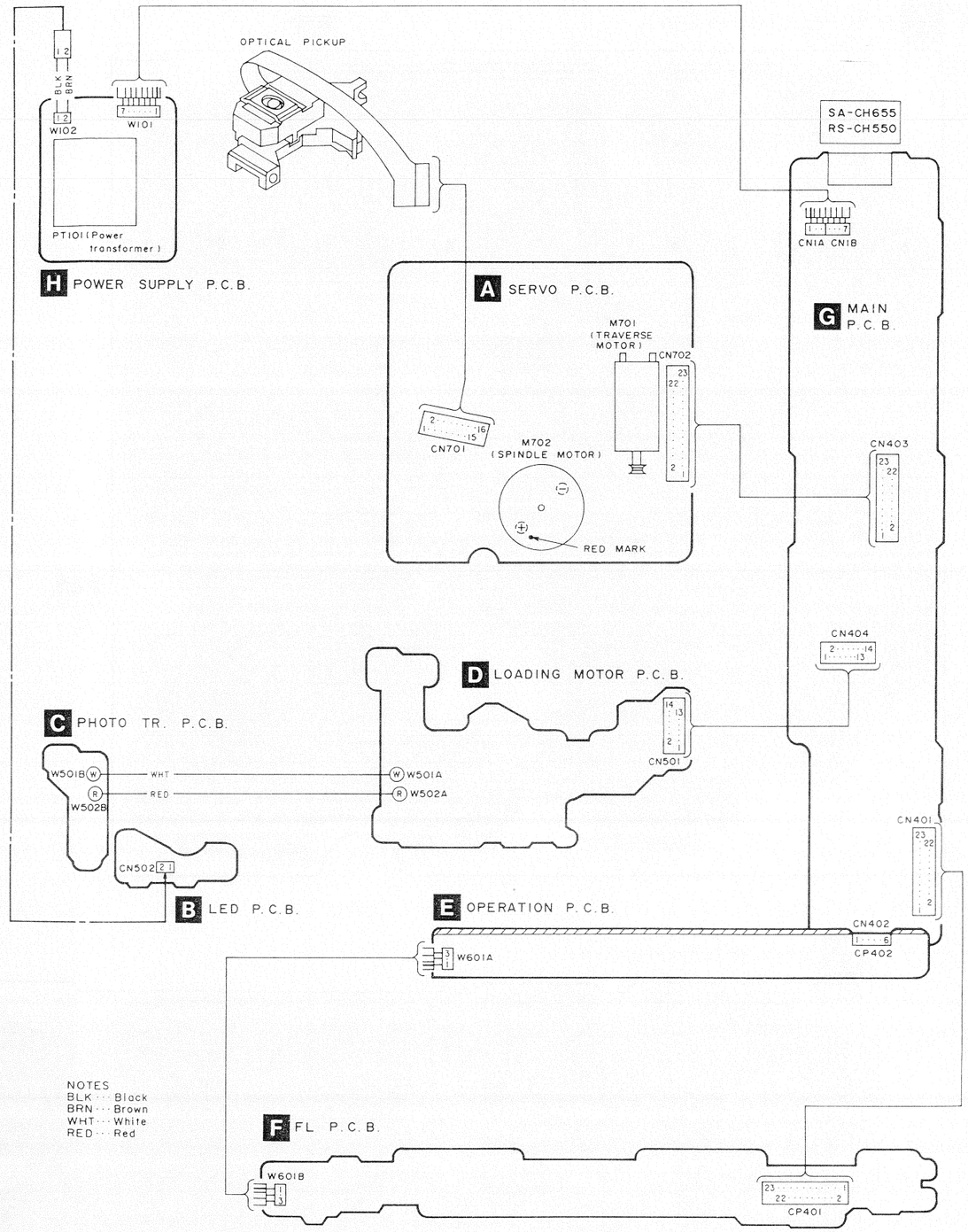


●This printed circuit board diagram may be modified at any time with the development of new technology.

BA4558FT1	TC4066BFTP1	LA5608M-TE-L 14 Pin AN8802SCE1V 32 Pin		MN66271RA	M38173M6238F
LC66304A4935	BA6218	LM2940T5M	AN8389SE1	2SA1309AQSTA 2SC3311AQSTA UN4112TA UN4212TA	
2SB1238QSTV6	2SD2037EFTA	2SB621ARSTA	DTC143ESTP	2SB709STW	MA4270HTA
	MA165TA MA167TA MA185TA 1SR35200TB 1SS291TA		MA4051MTA MA4056MTA MA4082LTA	GL380TB PT381TB	RSQGP1S53V

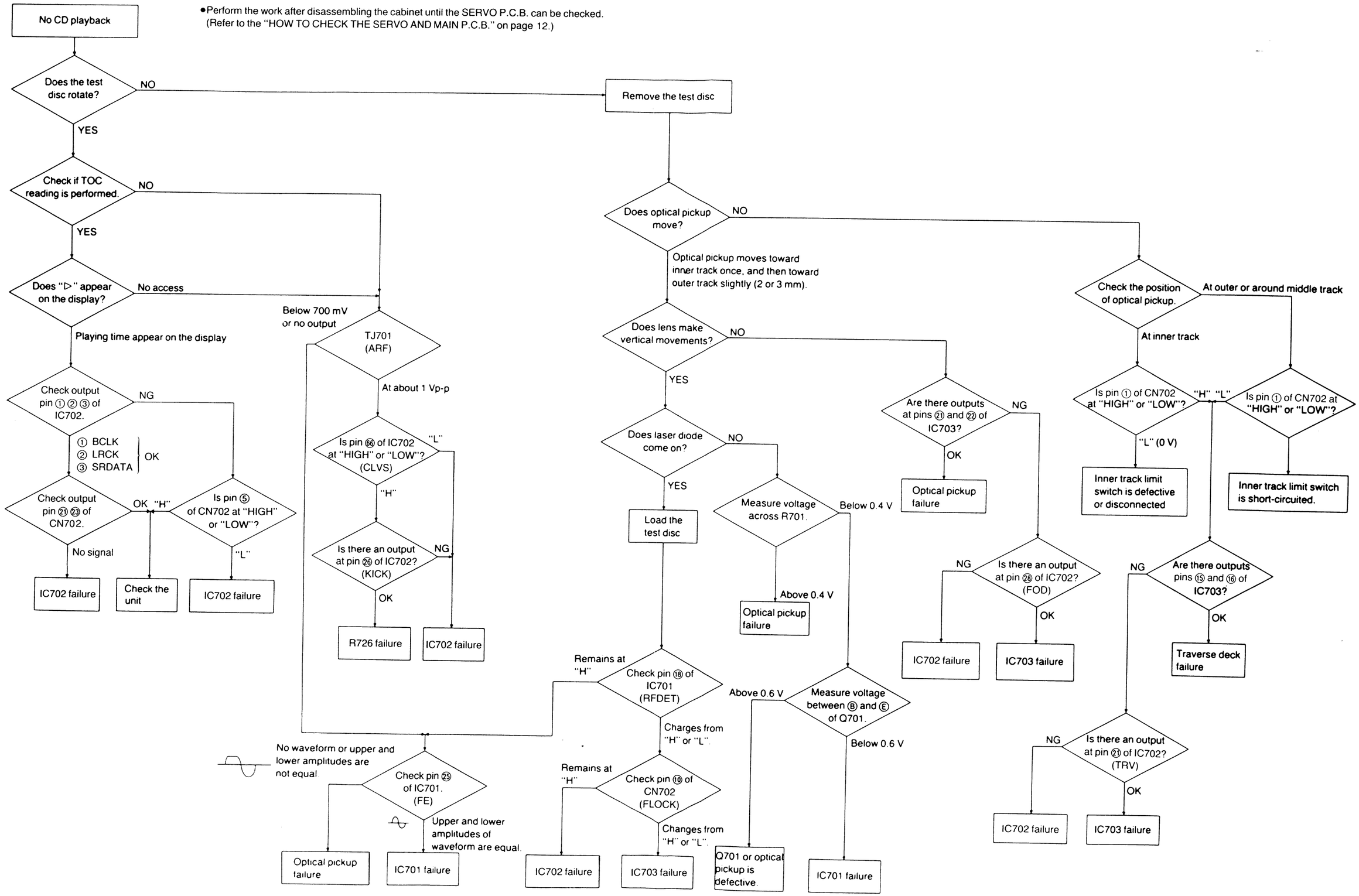
SL-CH555

■ WIRING CONNECTION DIAGRAM



NOTES
BLK ··· Black
BRN ··· Brown
WHT ··· White
RED ··· Red

■ TROUBLESHOOTING GUIDE


No CD playback
•Perform the work after disassembling the cabinet until the SERVO P.C.B. can be checked. (Refer to the "HOW TO CHECK THE SERVO AND MAIN P.C.B." on page 12.)
Does the test disc rotate?
NO
YES
Remove the test disc
Check if TOC reading is performed.
NO
YES
Does "▷" appear on the display?
No access
Playing time appear on the display
Below 700 mV or no output
TJ701 (ARF)
At about 1 Vp-p
Check output pin ① ② ③ of IC702.
NG
① BCLK
② LRCK
③ SRDATA
OK
Is pin ⑯ of IC702 at "HIGH" or "LOW"? (CLVS)
"L"
"H"
Check output pin ㉑ ㉓ of CN702.
OK
"H"
Is pin ⑤ of CN702 at "HIGH" or "LOW"?
No signal
"L"
Is there an output at pin ㉖ of IC702? (KICK)
NG
OK
IC702 failure
Check the unit
IC702 failure
R726 failure
IC702 failure
Does optical pickup move?
NO
Optical pickup moves toward inner track once, and then toward outer track slightly (2 or 3 mm).
Does lens make vertical movements?
NO
YES
Does laser diode come on?
NO
YES
Load the test disc
Measure voltage across R701.
Below 0.4 V
Above 0.4 V
Optical pickup failure
Are there outputs at pins ㉑ and ㉒ of IC703?
NG
OK
Optical pickup failure
Check the position of optical pickup.
At outer or around middle track
At inner track
Is pin ① of CN702 at "HIGH" or "LOW"?
"H" "L"
Is pin ① of CN702 at "HIGH" or "LOW"?
"L" (0 V)
Inner track limit switch is defective or disconnected
Inner track limit switch is short-circuited.
NG
Is there an output at pin ㉘ of IC702? (FOD)
OK
IC702 failure
IC703 failure
NG
Are there outputs pins ⑮ and ⑯ of IC703?
OK
Traverse deck failure
Remains at "H"
Check pin ⑱ of IC701 (RFDET)
Charges from "H" or "L".
No waveform or upper and lower amplitudes are not equal
Check pin ㉕ of IC701. (FE)
Upper and lower amplitudes of waveform are equal.
Optical pickup failure
IC701 failure
Remains at "H"
Check pin ⑩ of CN702 (FLOCK)
Changes from "H" or "L".
IC702 failure
IC703 failure
Above 0.6 V
Measure voltage between Ⓑ and Ⓔ of Q701.
Below 0.6 V
Q701 or optical pickup is defective.
IC701 failure
NG
Is there an output at pin ㉑ of IC702? (TRV)
OK
IC702 failure
IC703 failure

■ MEASUREMENTS AND ADJUSTMENTS

Caution:
- It is very dangerous to look at or touch the laser beam. (Laser radiation is invisible.)
  With the unit turned "on", laser radiation is emitted from the pickup lens.
  Avoid exposure to the laser beam, especially when performing adjustments.

■ This unit (SL-CH555) is actuated by power supply from the tuner amplifier SA-CH655. If you wish to actuate this unit without using the tuner amplifier SA-CH655 for checking or repairing, follow below procedure.

- **Apply AC 11 V between AC (L1)– GND (J1)– AC (L2).**

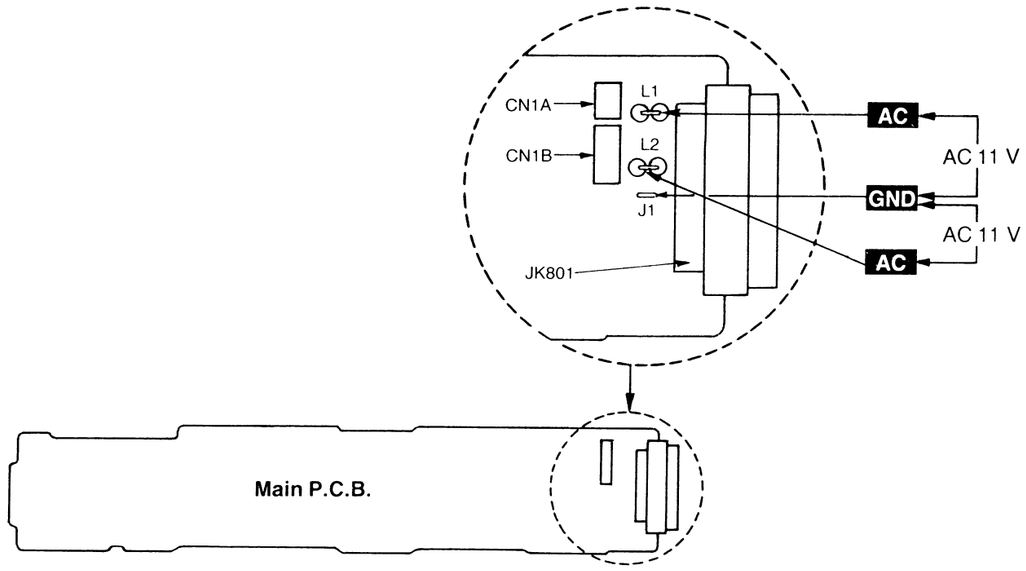


Fig. 1

•Locations of Adjustments

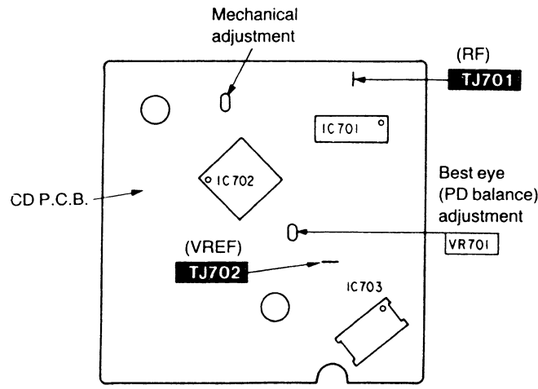


Fig. 2

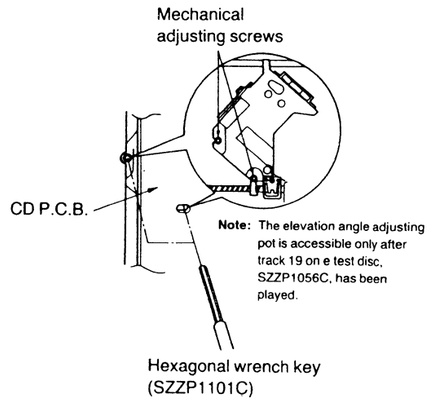

Mechanical adjusting screws
CD P.C.B.
Note: The elevation angle adjusting pot is accessible only after track 19 on e test disc, SZZP1056C, has been played.
Hexagonal wrench key (SZZP1101C)

Fig. 3

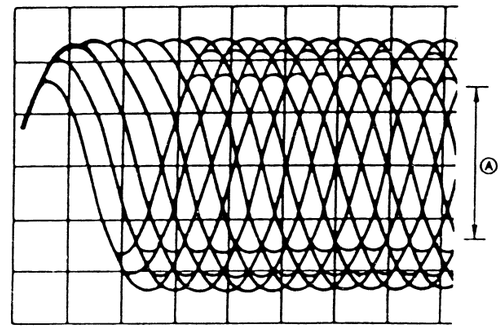
Measuring Instruments and Special Tools

- Test disc
  1. Playability test disc (SZZP1054C)
  2. Uneven test disc (SZZP1056C)
- Allen wrench (M2.0) (SZZP1101C)
- Oscilloscope

(1) MECHANICAL ADJUSTMENT

- When the traverse deck is replaced, making adjustments is not necessary. (The traverse deck ass'y is already adjusted.)
- Make adjustments to improve playability when the traverse deck has not been replaced. Make the electrical adjustments first.

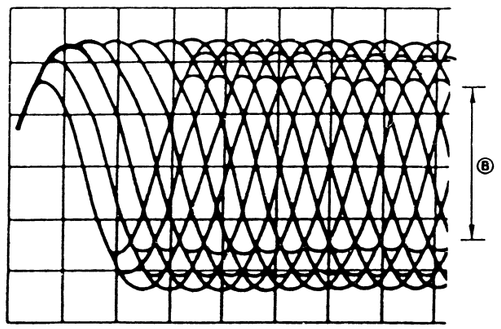
1. Connect the oscilloscope's CH. 1 probe across **TJ701** (+) and **TJ702** (VREF) on the Servo P.C.B.
   Oscilloscope setting:
   VOLT ..... 200 mV
   SWEEP ..... 0.5 µsec
   Input coupling ..... AC
2. Switch the player power **ON**, and play track **19** on the test disc (SZZP1056C).
3. Leave the player in Play mode and place it as shown in the figure on the right.
4. Alternately adjust the two mechanical adjusting screws with the 2.0 mm allen wrench (SZZP1101C) until the RF signal amplitude on the oscilloscope is maximize. (Shown in Fig. 3)
5. After completing the adjustment, lock the **mechanical adjustments** with lock paint (RZZ0L01).



Ⓐ **Maximize the amplitude.**

(2) BEST EYE (PD BALANCE) ADJUSTMENT

1. Connect the oscilloscope's CH. 1 probe across **TJ701** (+) and **TJ702** (VREF) on the Servo P.C.B.
   Oscilloscope setting:
   VOLT ..... 200 mV
   SWEEP ..... 0.5 µsec
   Input coupling ..... AC
2. Switch the player power **ON**, and play the 1 kHz (track 1) on test disc (SZZP1054C).
3. Adjust **VR701 until the RF signal eye pattern amplitude is maximized.** (Shown in Fig. 2)



Ⓑ **Maximize the amplitude.**

(3) CHECK OF PLAY OPERATION AFTER ADJUSTMENT

•Checking Skip Search

1. Play an ordinary musical program disc.
2. Press the skip button to check for normal skip search operation (in both the forward and reverse directions).

•Checking Manual Search

1. Play an ordinary musical program disc.
2. Press the manual search button to check for smooth manual search operations at either low or high speed (in both the forward and reverse directions).

•Checking Playability

1. Play the 0.7 mm black dot and the 0.7 mm wedge on the test disc (SZZP1054C) and verify that no sound skip or noise occurs.
2. Play the middle tracks of the uneven test disc and verify that no sound skip or noise occurs.

■ DISPLAY FUNCTION OF AUTOMATICALLY-ADJUSTED RESULTS (SELF-CHECK FUNCTION)

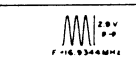
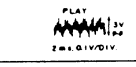
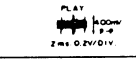
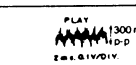
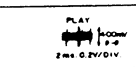
The unit contains a function which displays the result of the automatically adjustment of the servo circuits (tracking, forcus servo, etc.) as an error code on the FL display.
The error code display serves as a repair guide showing the automatically adjustment circuit is at fault. The procedures for displaying the error codes are given below.

●Procedures to display the error code

1. Check the servo P.C.B. as shown in the Disassembly Instructions, "How to check the Servo P.C.B.".
2. Set power to ON. (See page 29.)
3. Keep pressing the STOP (□) and F.SEARCH (▶▶) keys simultaneously for two seconds.
   After pressing them for two seconds, it comes to the self-check function mode.
4. The error code provides a rough indication of which servo circuit is malfunctioning.

●Error code based troubleshooting

*The unit is satisfactory if the error code is **E-00**.
*Before testing, check that the test disc is free of scratches and dirt and optical pickup is clean.

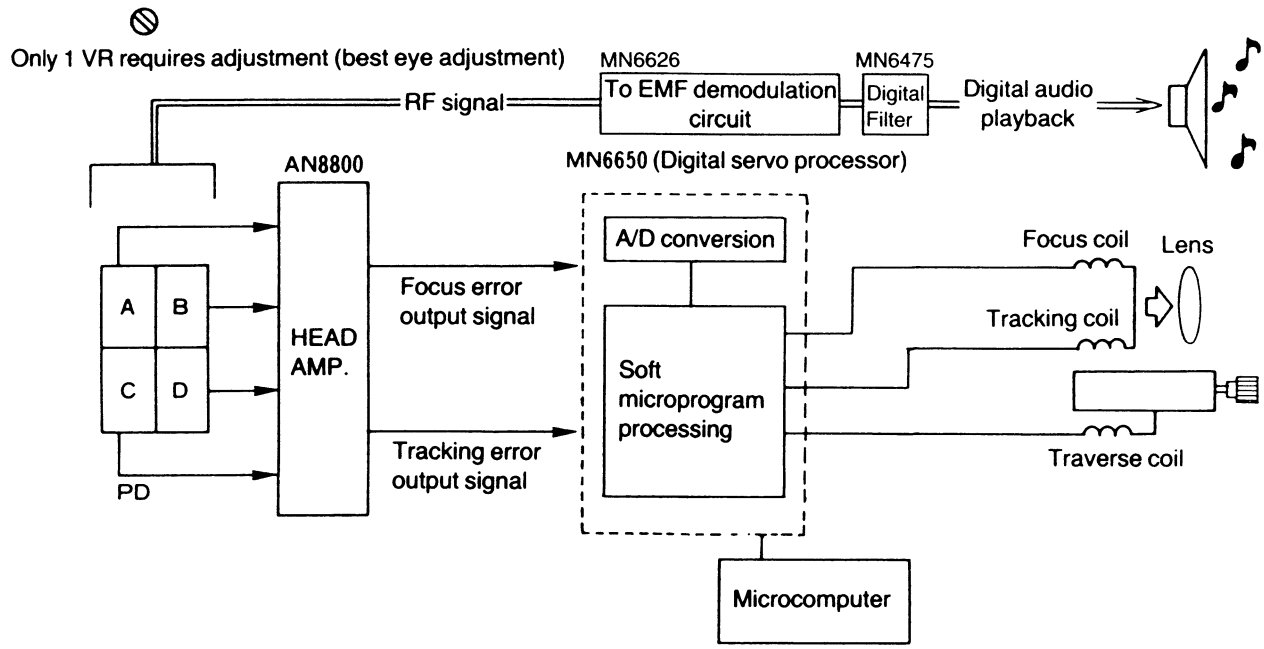
FL error code display	Symptom	Probable cause	Signal to check		Normal the values of voltage and waveform	
			Signal name	Location	PLAY	STOP
E-01	Focus and tracking offset adjustments did not complete in the specified time period.	① Clocks X1 and X2, power supply VDD, and reset/RST, all on IC702 ② MDATA, MCLK, MLD, and SENSE signals to/from the mechanism controller	MDATA	IC702 ⑧ pin		4.8V
			MCLK	IC702 ⑦ pin		4.8V
			MLD	IC702 ⑨ pin		
			SENSE	IC702 ⑩ pin	0V	0V
			/RST	IC702 ⑱ pin	4.9V	4.9V
			X1	IC702 ⑤⑧ pin		
			X2	IC702 ⑤⑨ pin		
E-03 E-05 E-07 E-09 E-0B E-0D E-0F	Disc play unstable	① Scratches or contaminants on disc surface ② Focus and tracking servo circuits (check waveforms, voltages, and part constangs.) ③ Spindle driver circuit ④ Optical pickup	FE	IC702 ㉜ pin		2.4V
			TE	IC702 ㉝ pin		2.4V
			FOD	IC702 ㉘ pin	2.4V	2.4V
			TRD	IC702 ㉗ pin	2.4V	2.4V
			KICK	IC702 ㉖ pin	2.4V	2.4V
			/FLOCK	IC702 ⑪ pin	0V	4.9V
			/RF DET	IC702 ㊳ pin	0V	4.8V
			RF	TJ701		3.4V
			STAT	IC702 ⑰ pin	4.9V	0V
E-04 E-06	Focus gain adjustment did not complete in the specified time period.	① Scratches or contaminants on disc surface ② Focus servo circuit (check waveforms, voltages, and part constants.) ③ Optical pickup	FE	IC702 ㉜ pin		2.4V
			OFT	IC702 ㊱ pin	0V	0V
			/TLOCK	IC702 ⑫ pin	0V	0V
E-08 E-0A	Tracking gain adjustment did not complete in the specified time period.	① Scratches or contaminants on disc surface ② Tracking circuit (check waveforms, voltages, and part constants.) ③ Optical pickup	TE	IC702 ㉝ pin		2.4V
			OFT	IC702 ㊱ pin	0V	0V
			/TLOCK	IC702 ⑫ pin	0V	0V
E-0C E-0E	Perform the same check as for error codes <E-04, E-06> and <E-08, E-0A>.		FE	IC702 ㉜ pin		2.4V
			TE	IC702 ㉝ pin		2.4V
			OFT	IC702 ㊱ pin	0V	0V
			/TLOCK	IC702 ⑫ pin	0V	0V

■ NEW DIGITAL SERVO CIRCUIT

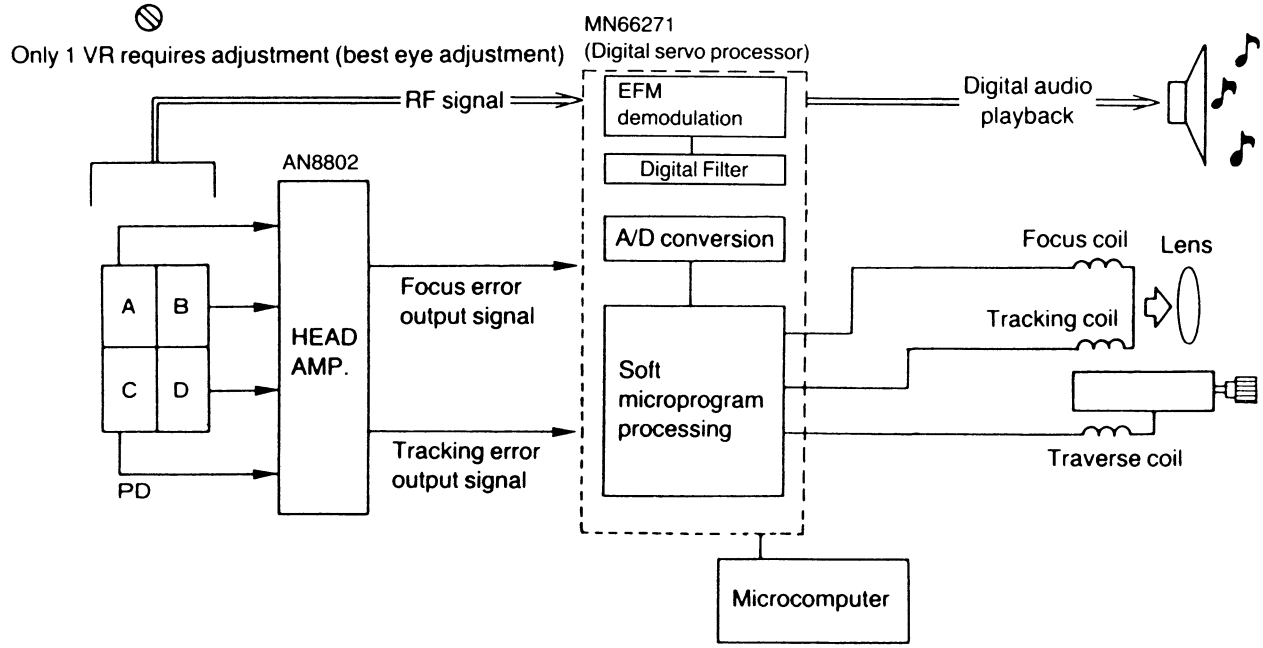
This model employs a new digital servo circuit. Compared to the old digital servo circuit, the following points have been improved.

1. **Reduced operated noise**
   Loading mechanism 2-level speed reducer
2. **Reduced access time**
   [(old) 2.9 seconds→(new) 1.9 seconds]
   Change of traverse gear
3. **Improved vibration resistance**
   Rubber and spring 2-level floating mechanism
   [fo=50 Hz (old)→20 Hz (new)]
4. **Reduced number of parts**
   Use of a single super IC tip
   3 chips (MN6626, MN6650, MN6475) are reduced to a single chip (MN66271)

DIGITAL SERVO SYSTEM (OLD)



DIGITAL SERVO SYSTEM (NEW)



•Refer to the service manual for Model No. SL-CH7 (Order No. AD9104084C8) for information on "DIGITAL SERVO SYSTEM" and "CHECKING THE OPERATION PROBLEMS ON THE TRAVERSE DECK (OPTICAL PICKUP)".

■ FUNCTION OF IC TERMINALS

●IC301 (M83173M6238F)

Pin No.	Terminal Name	I/O	Function
1	BSDTO	O	Bus data output
2	BSCKO	O	Bus clock output
3	BSDTI	I	Bus data input
4	BSCKI	I	Bus clock input
5 ~ 13	NU	—	——
14	SOL	O	Solenoid drive signal output
15	PSTN	I	Photo sensor signal input
16	PHOUT	I	Photo sensor signal input (Speed detect)
17	/FWD	O	Motor control (FWD)
18	/REW	O	Motor control (REW)
19	NU	—	——
20	/CD	O	Muting control signal output
21	CDPW	O	Reset control signal output
22	FOPN	I	Tray full open detect signal input
23	HOPN	I	Tray half open detect signal input
24	UP	I	Traverse up detect signal input
25	DOWN	I	Traverse down detect signal input
26	HALT	I	Power failure detect signal input
27	RST	I	Reset signal input
28	XC IN	—	GND
29	XC OUT	—	——
30	X IN	I	Clock input

Pin No.	Terminal Name	I/O	Function
31	X OUT	O	Clock output
32	VSS	—	GND
33 ~ 36	D3 ~ D0	O	IC401 data output
37	CLK	O	IC401 clock output
38	ACK	O	IC401 acknowledge output
39	SEND	O	IC401 send enable
40	RCV	O	IC401 receive enable
41 ~ 51	G11 ~ G1	O	FL grid drive singnal output
52 ~ 54	NU	—	——
55 ~ 64	S10 ~ S1	O	FL segment drive signal output
65 ~ 72	NU	—	——
73	VDD	I	+5 V
74	VPP	I	−28 V
75	AVSS	—	GND
76	VREF	O	Referense voltage output
77	NU	—	——
78, 79	KEY2, KEY1	I	Operation switch signal input
80	NU	—	——

●IC401 (LC66304A4935)

Pin No.	Pin Function	I/O	Description
1	REST SW	I	Innermost track sense switch status
2	SERVO RST	I	Reset signal input
3	STAT	I	Status signal input
4	SUBQ	I	Subcode Q input
5	D MUTE	O	Muting signal output
6	NC	—	——
7	SQCK	O	External clock for subcode Q register
8	BLKCK	I	Subcode block clock input
9	MLD	O	Microprocessor command load signal
10	MDATA	O	Microprocessor command data
11	MCLK	O	Microprocesser command clock
12	NU	—	Tied high
13	/RECV	I	Send enable
14	/SEND	I	Receive enable
15	TEST	—	GND
16	Vss		
17	OSC1	I	Clock input from IC702
18	NC	—	GND
19	NC	—	GND
20	OSC2	—	——
21	/RST	O	Reset signal output
22	ACK	I	Acknowledge input for communication with IC601
23	CLK	I	Clock for communication with IC601

Pin No.	Pin Function	I/O	Description
24	DATA0	I	Parallel 4-bit data from IC601
25	DATA1		
26	DATA2		
27	DATA3		
28	NU	—	GND
29			
30	NC	—	GND
31	EMP	—	——
32	MUTE RELAY	—	——
33	NU	—	GND
34			
35			
36	CS	—	GND
37	NU	—	GND
38			
39	VDD	I	Power supply
40	OPEN SW	I	Tied high
41	CLOSE SW	—	GED
42	NC	—	GND
43			
44	/CLOSE	—	——
45	/OPEN	—	——
46	SENSE	I	Sense signal input
47	/FLOCK	I	Focus servo pull-in signal
48	/TLOCK	I	Tracking servo pull-in signal

●IC703 (AN8389SE1)

Pin No.	Terminal Name	I/O	Function
1	Vcc	I	Power supply
2	VREF	I	VREF input
3	IN4	I	Motor driver (4) input
4	IN3	I	Motor driver (3) input
5	GND	—	Ground connection
6	NC	—	Ground connection
7	NRESET	I	Reset input
8	GND	—	Ground connection
9	IN2	I	Motor driver (2) input
10	PC2	I	PC2 (power cut) input
11	IN1	I	Motor driver (1) input
12	PC1	I	PC1 (power cut) input (no use, open)

Pin No.	Terminal Name	I/O	Function
13	PVcc1	I	Power supply (1) for driver
14	PGND1	—	Ground connection (1) for driver
15	D1−	O	Motor driver (1) reverse-action output
16	D1+	O	Motor driver (1) forward-action output
17	D2−	O	Motor driver (2) reverse-action output
18	D2+	O	Motor driver (2) forward-action output
19	D3−	O	Motor driver (3) reverse-action output
20	D3+	O	Motor driver (3) forward-action output
21	D4−	O	Motor driver (4) reverse-action output
22	D4+	O	Motor driver (4) forward-action output
23	PGND2	—	Ground connection (2) for driver
24	PVcc2	I	Power supply (2) for driver

ion

IC601

nal

signal

on

river

) for driver

se-action output

rd-action output

se-action output

rd-action output

se-action output

rd-action output

se-action output

rd-action output

2) for driver

driver

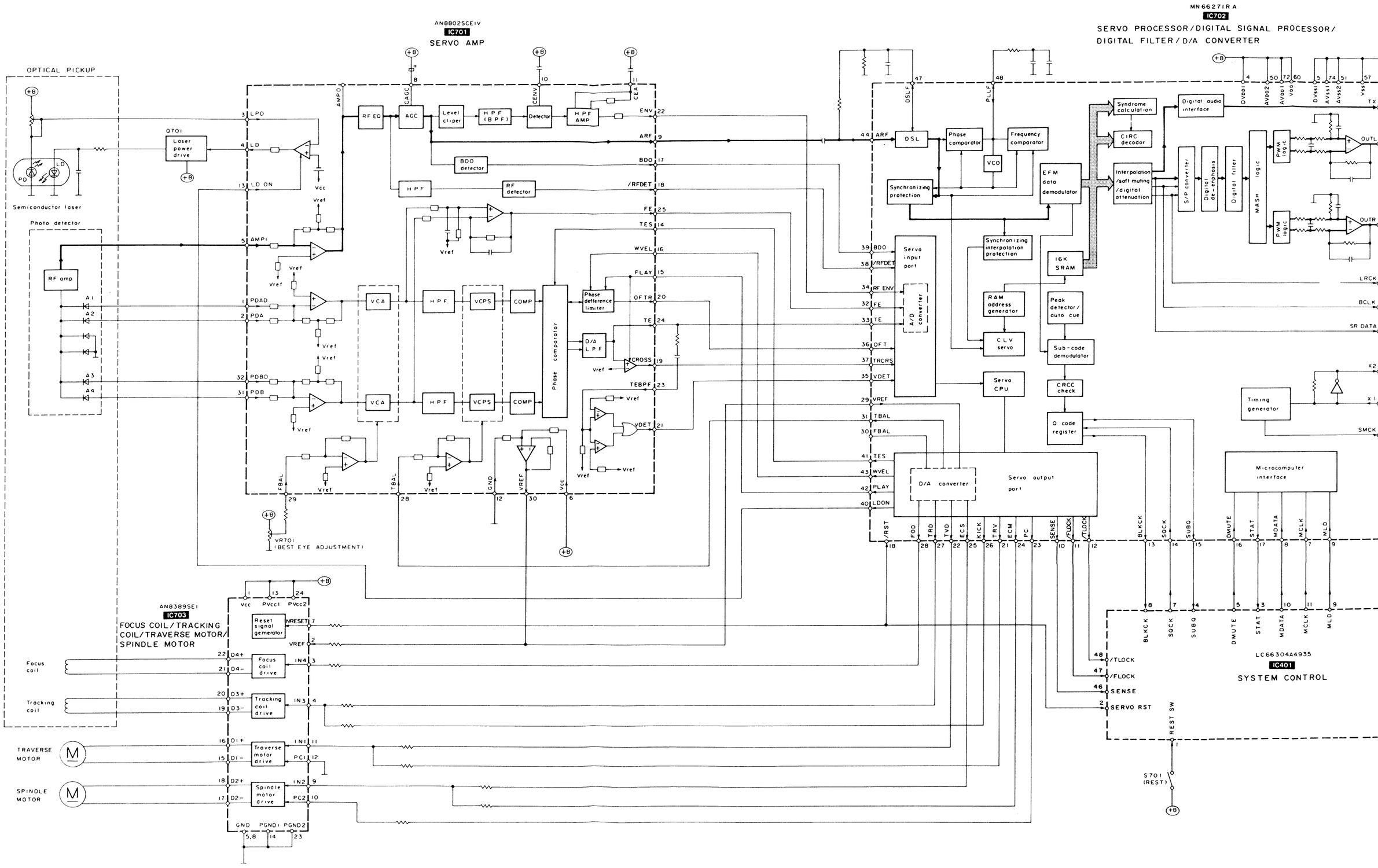
•IC701 (AN8802SCE1V)

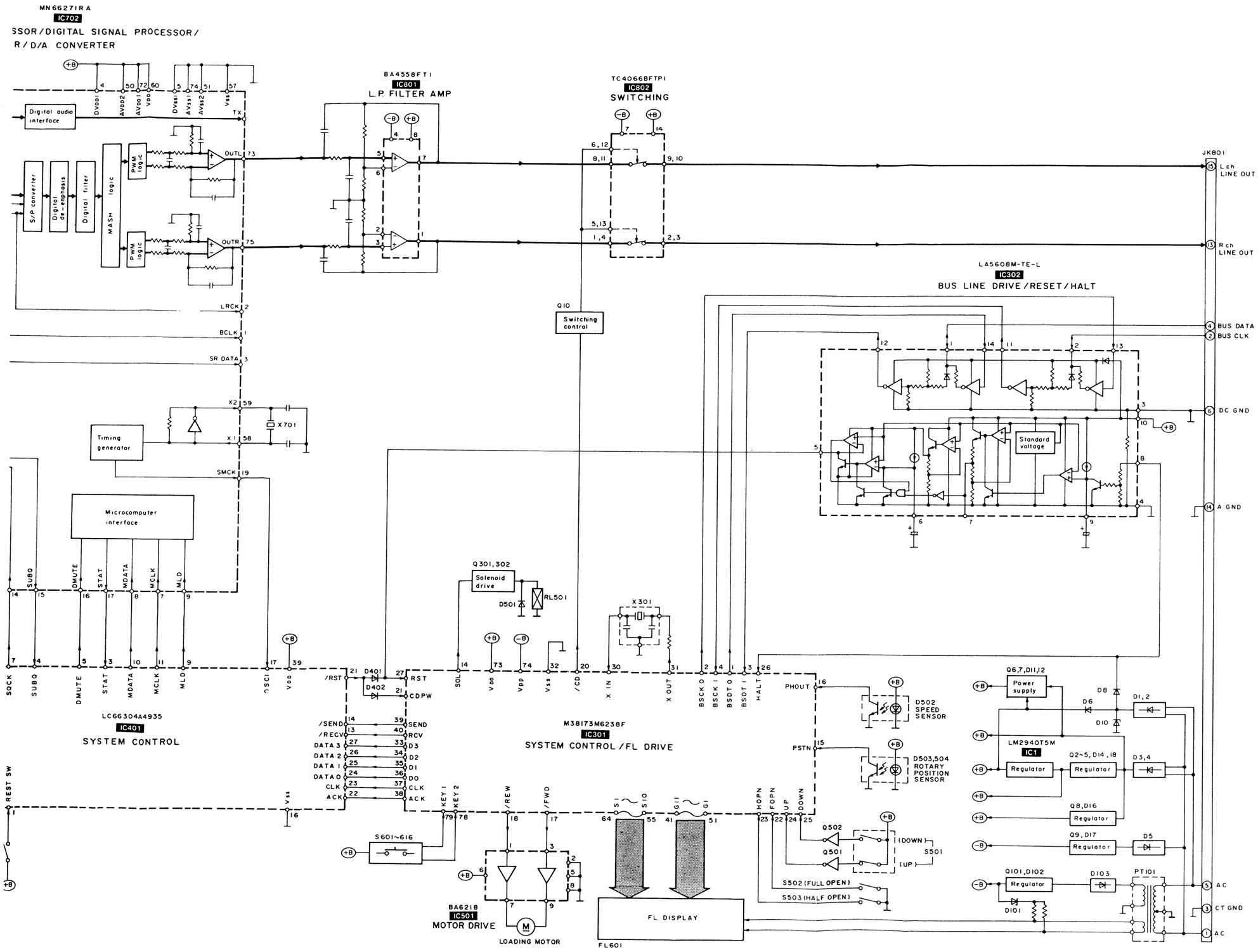
Pin No.	Terminal Name	I/O	Function
1	PDAD	I	PD A channel signal input with delay
2	PDA	I	PD A channel signal input without delay
3	LPD	I	Laser PD connection
4	LD	O	Power supply for LD driving
5	AMPI	I	RF amplifier input
6	V_{CC}	I	Power supply connection
7	AMPO	O	RF amplifier output (no use, open)
8	CAGC	I	AGC loop filter connection
9	ARF	O	RF AGC output
10	CENV	I	Capacitor connection for RF detection
11	CEA	I	Capacitor connection for HPF amplifier
12	GND	—	Ground connection
13	LDON	I	ON/OFF input of LD APC ("H": ON, "L": OFF)
14	TES	I	Tracking error shunt signal input ("H": shunt)
15	PLAY	I	Play signal input ("H": PLAY)
16	WVEL	I	WVEL control
17	BDO	O	BDO output
18	/RFDET	O	NRFDET output
19	CROSS	O	CROSS output
20	OFTR	O	OFTR output
21	VDET	O	VDET output
22	ENV	O	ENV output
23	TEBPF	I	Vibration detection input
24	TE	O	Tracking error output
25	FE	O	Focus error output
26	PTO	O	Potentioamplifier output (no use, open)
27	PTI	I	Potentioamplifier inversion input (no use, open)
28	TBAL	I	Tracking balance input
29	FBAL	I	Focus balance input
30	VREF	O	VREF output
31	PDB	I	PD B channel signal input without delay
32	PDBD	I	PD B channel signal input with delay

•IC702 (MN66271RA)

Pin No.	Terminal Name	I/O	Function
1	BCLK	O	Bit clock output for serial data (no used, open)
2	LRCK	O	L/R identification signal output (no use, open)
3	SRDATA	O	Serial data output (no used, open)
4	$DV_{DD}1$	I	Power supply input (for digital circuit)
5	$DV_{SS}1$	—	GND (for digital circuit)
6	TX	O	Digital audio interface signal output
7	MCLK	I	Microprocessor command clock signal input (Latches data at first transition)
8	MDATA	I	Microprocessor command data signal input
9	MLD	I	Microprocessor command load signal input
10	SENSE	O	Sence signal output (OFT, FESL, MAGEND, NAJEND, POSAD, SFG)
11	/FLOCK	O	Focus servo feeding signal output ("L": Feed)
12	/TLOCK	O	Tracking servo feeding signal output ("L": Feed)
13	BLKCK	O	Sub-code block clock signal output (fBLKCK = 75 Hz during normal playback)
14	SQCK	I	External clock signal input for sub-code Q register
15	SUBQ	O	Sub-code Q code output
16	DMUTE	I	Muting input ("H": Mute)
17	STAT	O	Status signal output (CRC, CUE, CLVS, TTSTVP, FCLV, SQCK)
18	/RST	I	Reset input
19	SMCK	O	1/2-divided clock signal of crystal oscillating at MSEL = "H" (fSMCK = 8.4672 MHz) 1/4-divided clock signal of crystal oscillating at MSEL = "L" (fSMCK = 4.2336 MHz)
20	PMCK	O	1/192-divided clock signal of crystal oscillating (fPMCK = 88.2 KHz) (no use, open)
21	TRV	O	Traverse forced feed output
22	TVD	O	Traverse drive output
23	PC	O	Spindle motor ON signal output ("L": ON)
24	ECM	O	Spindle motor drive signal output (forced mode output)
25	ECS	O	Spindle motor drive signal output (servo error signal output)
26	KICK	O	Kick pulse output
27	TRD	O	Tracking drive output
28	FOD	O	Focus drive output
29	VREF	I	D/A (drive) output (TVD, ECS, TRD, FOD, FBAL, TBAL) Reference voltage input
30	FBAL	O	Focus balance adjustment output (no use, open)
31	TBAL	O	Tracking balance adjustment output
32	FE	I	Focus error signal input (analog input)
33	TE	I	Tracking error signal input (analog input)
34	RFENV	I	RF envelope signal input
35	VDET	I	Vibration detection signal input ("H": detection)
36	OFT	I	Off-track signal input ("H": off track)
37	TRCRS	I	Track cross signal input
38	/RFDET	I	RF detection signal input ("L": detection)
39	BDO	I	Dropout signal input ("H": Dropout)
40	LDON	O	Laser on signal output ("H": ON)
41	TES	O	Tracking error shunt signal output ("H": shunt)
42	PLAY	O	Play signal out ("H": PLAY)
43	WVEL	O	Double speed status signal output ("H": Double speed)
44	ARF	I	RF signal input
45	IREF	I	Reference current input
46	DRF	I	DSL bias (no use, open)
47	DSLF	I/O	DSL loop filter
48	PLLF	I/O	PLL loop filter
49	VCOF	I/O	VCO loop filter (no use, open)
50	$AV_{DD}2$	I	Power supply input (for analog circuit)
51	$AV_{SS}2$	—	GND (for analog circuit)
52	EFM	O	EFM signal output (not use, open)
53	PCK	O	PLL extraction clock output (fPCK = 4.321 MHz during normal playback) (no use, open)
54	PDO	O	Phase comparison signal of EFM and PCK signals (no use, open)
55	SUBC	O	Sub-code serial data output (no use, open)
56	SBCK	I	Clock input for sub-code serial data (no use, open)
57	V_{SS}	—	GND
58	X1	I	Crystal oscillating circuit input (f = 16.9344 MHz)
59	X2	O	Crystal oscillation circuit output (f = 16.9344 MHz)
60	V_{DD}	I	Power supply input (for oscillating circuit)
61	BYTCK	O	Byte clock output (no use, open)
62	/CLDCK	O	Sub-code frame clock signal output (fCLDCK = 7.35 kHz during normal playback)
63	FCLK	O	Crystal frame clock signal output (fFCLK = 7.35 kHz, double = 14.7 kHz)
64	PFLAG	O	Interpolation flag output ("H": Interpolation) (no use, open)
65	FLAG	O	Flage output (no use, open)
66	CLVS	O	Spindle servo phase synchronizing signal output ("H": CLV, "L": rough servo) (no use, open)
67	CRC	O	Sub-code CRC checked output ("H": OK, "L": NG) (no use, open)
68	DEMPH	O	De-emphasis ON signal output ("H": ON) (no use, open)
69	RESY	O	Frame resynchronizing signal output (no use, open)
70	/RST2	I	Reset input through MASH circuit ("L": Reset)
71	/TEST	I	Test input
72	$AV_{DD}1$	I	Power supply input (for analog circuit)
73	OUTL	O	Left channel audio signal output
74	$AV_{SS}1$	—	GND
75	OUTR	O	Right channel audio signal output
76	RSEL	I	RF signal polarity assignment input (at "H" level, RSEL = "H"; at "L" level, RSEL = L)
77	CSEL	I	Crystal oscillating frequency designation input ("L": 16.9344 MHz, "H": 33/8688 MHz)
78	PSEL	I	Test input (normally, "L") (no use, open)
79	MSEL	I	Output frequency switching for SMCK terminal "H": SMCK = 8.4672 MHz "L": SMCK = 4.2336 MHz (no use, open)
80	SSEL	I	Output mode switching of SUBQ terminal ("H": Q code buffer mode)

■ BLOCK DIAGRAM




MN6627IRA
IC702
SSOR/DIGITAL SIGNAL PROCESSOR/
R/D/A CONVERTER
Digital audio interface
S/P converter
Digital de-emphasis
Digital filter
MASH logic
PWM logic
PWM logic
OUTL
OUTR
BA4558FTI
IC801
L.P. FILTER AMP
TC4066BFTPI
IC802
SWITCHING
JK801
L ch LINE OUT
R ch LINE OUT
LA5608M-TE-L
IC302
BUS LINE DRIVE/RESET/HALT
BUS DATA
BUS CLK
DC GND
A GND
Standard voltage
Q10
Switching control
LRCK
BCLK
SR DATA
X701
Timing generator
Microcomputer interface
SUBQ
DMUTE
STAT
MDATA
MCLK
MLD
SOCK
Q301,302
Solenoid drive
D501
RL501
X301
LC66304A4935
IC401
SYSTEM CONTROL
M38173M6238F
IC301
SYSTEM CONTROL/FL DRIVE
/SEND
/RECV
DATA 3
DATA 2
DATA 1
DATA 0
CLK
ACK
SEND
RCV
D3
D2
D1
D0
CLK
ACK
/RST
D401
D402
RST
CDPW
SOL
/CD
X IN
X OUT
BSCK O
BSCK I
BSDT O
BSDT I
HALT
PHOUT
PSTN
D502 SPEED SENSOR
D503,504 ROTARY POSITION SENSOR
REST SW
S601~616
KEY 1
KEY 2
/REW
/FWD
BA6218
IC501
MOTOR DRIVE
LOADING MOTOR
FL DISPLAY
FL601
HOPN
FOPN
UP
DOWN
Q502
Q501
(DOWN)
(UP)
S501
S502 (FULL OPEN)
S503 (HALF OPEN)
Q6,7,D11,12
Power supply
LM2940T5M
IC1
Regulator
Q2~5, D14, 18
Q8, D16
Q9, D17
D8
D6
D10
D1, 2
D3, 4
D5
Q101, D102
D101
D103
PT101
AC
CT GND
AC

■ REPLACEMENT PARTS LIST

Notes: *Important safety notice:
Components identified by ⚠ mark have special characteristics important for safety.
Furthermore, special parts which have purposes of fire-retardant (resistors), high-quality sound (capacitors), low-noise (resistors), etc. are used.
When replacing any of components, be sure to use only manufacturer's specified parts shown in the parts list.
*The parenthesized indications in the Remarks columns specify the areas. (Refer to the cover page for area.)
Parts without these indications can be used for all areas.
*Warning: This product uses a diode. Refer to caution statements on page 2.

Ref. No.	Part No.	Part Name & Description	Remarks
		INTEGRATED CIRCUIT(S)	
IC1	LM2940T5	I. C. REGULATOR	⚠
IC301	M38173M6238F	I. C. FL DRIVE/SYSTEM CONT.	
IC302	LA5608M-TE-L	I. C. BUS LINE/HALT/RESET	
IC401	LC66304A4935	I. C. SYSTEM CONT.	
IC501	BA6218	I. C. MOTOR DRIVE	
IC801	SVIBA4558F	I. C. L. P. F.	
IC802	TC4066BFTP1	I. C. SWITCHING	
IC701	AN8802SCE1V	I. C. SERVO AMP.	
IC702	MN66271RA	I. C. SERVO PROCESSOR	
IC703	AN8389SE1	I. C. MOTOR DRIVE	
		TRANSISTOR(S)	
Q2-5	2SD2037EFTA	TRANSISTOR	⚠
Q6	2SC3311A-Q	TRANSISTOR	
Q7	2SB621A-R	TRANSISTOR	
Q8	2SC3311A-Q	TRANSISTOR	⚠
Q9	2SA1309A-R	TRANSISTOR	⚠
Q10	UN4112	TRANSISTOR	
Q101	2SB1238QSTV6	TRANSISTOR	⚠
Q301	2SB621A-R	TRANSISTOR	
Q302	UN4212TA	TRANSISTOR	
Q501, 502	DTC143ESTP	TRANSISTOR	
Q701	2SB709S	TRANSISTOR	
		DIODE(S)	
D1, 2	MA167	DIODE	⚠
D3-5	1SR35200TB	DIODE	⚠
D6	MA165	DIODE	
D8	MA165	DIODE	
D10	MA4051MTA	DIODE	⚠
D11, 12	MA165	DIODE	
D14	MA4082LTA	DIODE	⚠
D16, 17	MA4056MTA	DIODE	⚠
D18	1SR35200TB	DIODE	
D101	MA4051MTA	DIODE	⚠
D102	MA4270HTA	DIODE	⚠
D103	MA185TA	DIODE	⚠
D301	1SS291TA	DIODE	
D401	1SS291TA	DIODE	
D402	MA165	DIODE	
D501	MA165	DIODE	

Ref. No.	Part No.	Part Name & Description	Remarks
D502	RSQGP1S53V	DIODE	
D503	PT381TB	DIODE	
D504	GL380TB	DIODE	
		COIL(S)	
L1, 2	BL02RN2R62T4	COIL	
L3, 4	ELEXT3R3KA9	COIL	
L401	BL02RN2R62T4	COIL	
		VARIABLE RESISTOR(S)	
VR701	EVNDXAA00B14	V. R, BEST EYE ADJ.	
		OSCILLATOR(S)	
X301	RSXY4M23M01T	OSCILLATOR(4. 23MHz)	
X701	RSXZ16M9M02T	OSCILLATOR(16. 9344MHz)	
		DISPLAY(S)	
FL601	RSL0144-F	FL DISPLAY	
		SWITCH(ES)	
S501	RSH2A001-2	SW, UP/DOWN	
S502	RSH1A005	SW, FULL OPEN	
S503	RSH1A005	SW, HALF OPEN	
S601	EVQ21405R	SW, DISPLAY	
S602	EVQ21405R	SW, J. FIT	
S603	EVQ21405R	SW, ALBUM	
S604	EVQ21405R	SW, REPEAT	
S605	EVQ21405R	SW, RANDOM	
S606	EVQ21405R	SW, DISC3	
S607	EVQ21405R	SW, DISC2	
S608	EVQ21405R	SW, DISC1	
S609	EVQ21405R	SW, REV. SEARCH	
S610	EVQ21405R	SW, FWD. SEARCH	
S611	EVQ21405R	SW, REV. SKIP	
S612	EVQ21405R	SW, FWD. SKIP	
S613	EVQ21405R	SW, PAUSE	
S614	EVQ21405R	SW, PLAY	
S615	EVQ21405R	SW, STOP	
S616	EVQ21405R	SW, OPEN/CLOSE	
S701	RSM0006-P	SW, REST	

Ref. No.	Part No.	Part Name & Description	Remarks
		CONNECTOR(S)	
CN401	RJS1A6823	SOCKET(23P)	
CN402	RJU003K006M1	SOCKET(6P)	
CN403	RJS1A6823	SOCKET(23P)	
CN404	RJS1A6814	SOCKET(14P)	
CN501	RJS1A6714	SOCKET(14P)	
CN502	RJP2G17ZA	PLUG(2P)	
CN701	RJU035T016-1	SOCKET(16P)	
CN702	RJS1A6723-1Q	SOCKET(23P)	
CN1A	RJS1A6603	SOCKET(3P)	
CN1B	RJS1A6604	SOCKET(4P)	
CP401	RJS1A6723-Q	SOCKET(23P)	
CP402	RJT003K006-1	CONNECTOR(6P)	

Ref. No.	Part No.	Part Name & Description	
		EARTH TERMINAL(S)	
E1	SNE1004-1	GND PLATE	
		TRANSFORMER(S)	
PT101	RTP114G003	POWER TRANSFORMER	⚠
		JACK(S)	
JK801	RJT065K15	CONNECTOR(15P)	
		TEST JUMPER(S)	
TJ701	RRJ8GET001H	TEST JUMPER	
TJ702	RRJ8GET001H	TEST JUMPER	

Notes : • Capacity values are in microfarads (uF) unless specified otherwise, P=Pico-farads(pF) F=Farads(F)
• Resistance values are in ohms, unless specified otherwise, 1K=1, 000(OHM) , 1M=1, 000k(OHM)

Ref. No.	Part No.	Values & Remarks
		RESISTORS
R1, 2	ERDS2TJ562	1/4W 5. 6K
R3	ERDS2TJ472	1/4W 4. 7K
R5	ERQ16NKWR15E	1/6W 0. 15 ⚠
R6, 7	ERDS2TJ471	1/4W 470
R8	ERD2FCVJ6R8T	1/4W 6. 8 ⚠
R10, 11	ERDS2TJ1R2	1/4W 1. 2
R12	ERDS1FVJ271T	1/2W 270 ⚠
R13	ERD2FCVJ6R8T	1/4W 6. 8 ⚠
R19	ERDS2TJ332	1/4W 3. 3K
R20	ERDS2TJ151	1/4W 150
R21	ERDS2TJ103	1/4W 10K
R22	ERDS2TJ332	1/4W 3. 3K
R23	ERDS2TJ151	1/4W 150
R26, 27	ERDS2TJ1R2	1/4W 1. 2
R101, 102	ERDS2EJ121	1/4W 120
R103	ERDS2TJ471	1/4W 470
R104	ERDS2TJ562	1/4W 5. 6K
R105	ERDS2TJ100	1/4W 10
R106	ERDS2TJ120T	1/4W 12
R107	ERDS2TJ271	1/4W 270
R301-305	ERDS2TJ103	1/4W 10K
R306	ERDS2TJ473	1/4W 47K
R307	ERDS2TJ181T	1/4W 180
R308, 309	ERDS2TJ103	1/4W 10K
R310	ERDS2TJ101	1/4W 100

Ref. No.	Part No.	Values & Remarks
R311	ERDS2TJ104	1/4W 100K
R312	ERDS2TJ103	1/4W 10K
R313	ERDS2TJ470	1/4W 47
R315	ERDS2TJ470	1/4W 47
R316	ERDS2TJ223	1/4W 22K
R317	ERDS2TJ821	1/4W 820
R318	ERDS2TJ472	1/4W 4. 7K
R319	ERDS1FVJ6R8T	1/2W 6. 8 ⚠
R320, 321	ERDS2TJ101	1/4W 100
R401	ERDS2TJ102	1/4W 1K
R402	ERDS2TJ560T	1/4W 56
R403-410	ERDS2TJ221	1/4W 220
R411-418	ERDS2TJ472	1/4W 4. 7K
R419	ERDS2TJ104	1/4W 100K
R420	ERDS2TJ103	1/4W 10K
R421	ERDS2TJ472	1/4W 4. 7K
R422	ERDS2TJ102	1/4W 1K
R423	ERDS2TJ472	1/4W 4. 7K
R601	ERDS2TJ223	1/4W 22K
R602	ERDS2TJ123	1/4W 12K
R603	ERDS2TJ682T	1/4W 6. 8K
R604	ERDS2TJ472	1/4W 4. 7K
R605	ERDS2TJ332	1/4W 3. 3K
R606	ERDS2TJ222	1/4W 2. 2K
R607	ERDS2TJ182	1/4W 1. 8K
R608	ERDS2TJ152	1/4W 1. 5K
R609	ERDS2TJ122	1/4W 1. 2K
R610	ERDS2TJ102	1/4W 1K

Ref. No.	Part No.	Valu
R611	ERDS2TJ821	1/4W
R612	ERDS2TJ122	1/4W
R613	ERDS2TJ102	1/4W
R614	ERDS2TJ821	1/4W
R701	ERJ6GEYJ100	1/10W
R702	ERJ6GEYJ471V	1/10W
R703	ERJ6GEYJ823	1/10W
R704	ERJ6GEYJ102A	1/10W
R705	ERJ6GEYJ103V	1/10W
R706	ERJ6GEYJ102A	1/10W
R707	ERJ6GEYJ473V	1/10W
R708	ERJ6GEYJ224V	1/10W
R709	ERJ6GEYJ683V	1/10W
R711	ERJ6GEYJ154V	1/10W
R712	ERJ6GEYJ471V	1/10W
R714	ERJ6GEYOR00A	1/10W
R717-720	ERJ6GEYJ102A	1/10W
R721	ERJ8GEYJ101V	1/8W
R722	ERJ6GEYJ473V	1/10W
R723	ERJ6GEYJ182V	1/10W
R724	ERJ6GEYJ333V	1/10W
R725	ERJ6GEYJ472V	1/10W
R726	ERJ6GEYJ473V	1/10W
R727	ERJ6GEYJ103V	1/10W
R728	ERJ6GEYJ392V	1/10W
R730	ERJ6GEYJ331V	1/10W
R731	ERJ6GEYJ392V	1/10W
R734-736	ERJ6GEYJ101V	1/10W

Ref. No.	Part No.	Part Name & Description	Remarks
		CONNECTOR(S)	
CN401	RJS1A6823	SOCKET(23P)	
CN402	RJU003K006M1	SOCKET(6P)	
CN403	RJS1A6823	SOCKET(23P)	
CN404	RJS1A6814	SOCKET(14P)	
CN501	RJS1A6714	SOCKET(14P)	
CN502	RJP2G17ZA	PLUG(2P)	
CN701	RJU035T016-1	SOCKET(16P)	
CN702	RJS1A6723-1Q	SOCKET(23P)	
CN1A	RJS1A6603	SOCKET(3P)	
CN1B	RJS1A6604	SOCKET(4P)	
CP401	RJS1A6723-Q	SOCKET(23P)	
CP402	RJT003K006-1	CONNECTOR(6P)	

Ref. No.	Part No.	Part Name & Description	Remarks
		EARTH TERMINAL(S)	
E1	SNE1004-1	GND PLATE	
		TRANSFORMER(S)	
PT101	RTP114G003	POWER TRANSFORMER	⚠
		JACK(S)	
JK801	RJT065K15	CONNECTOR(15P)	
		TEST JUMPER(S)	
TJ701	RRJ8GET001H	TEST JUMPER	
TJ702	RRJ8GET001H	TEST JUMPER	

Notes : • Capacity values are in microfarads (uF) unless specified otherwise, P=Pico-farads(pF) F=Farads(F)
• Resistance values are in ohms, unless specified otherwise, 1K=1,000(OHM) , 1M=1,000k(OHM)

Ref. No.	Part No.	Values & Remarks
		RESISTORS
R1, 2	ERDS2TJ562	1/4W 5.6K
R3	ERDS2TJ472	1/4W 4.7K
R5	ERQ16NKWR15E	1/6W 0.15 ⚠
R6, 7	ERDS2TJ471	1/4W 470
R8	ERD2FCVJ6R8T	1/4W 6.8 ⚠
R10, 11	ERDS2TJ1R2	1/4W 1.2
R12	ERDS1FVJ271T	1/2W 270 ⚠
R13	ERD2FCVJ6R8T	1/4W 6.8 ⚠
R19	ERDS2TJ332	1/4W 3.3K
R20	ERDS2TJ151	1/4W 150
R21	ERDS2TJ103	1/4W 10K
R22	ERDS2TJ332	1/4W 3.3K
R23	ERDS2TJ151	1/4W 150
R26, 27	ERDS2TJ1R2	1/4W 1.2
R101, 102	ERDS2EJ121	1/4W 120
R103	ERDS2TJ471	1/4W 470
R104	ERDS2TJ562	1/4W 5.6K
R105	ERDS2TJ100	1/4W 10
R106	ERDS2TJ120T	1/4W 12
R107	ERDS2TJ271	1/4W 270
R301-305	ERDS2TJ103	1/4W 10K
R306	ERDS2TJ473	1/4W 47K
R307	ERDS2TJ181T	1/4W 180
R308, 309	ERDS2TJ103	1/4W 10K
R310	ERDS2TJ101	1/4W 100

Ref. No.	Part No.	Values & Remarks
R311	ERDS2TJ104	1/4W 100K
R312	ERDS2TJ103	1/4W 10K
R313	ERDS2TJ470	1/4W 47
R315	ERDS2TJ470	1/4W 47
R316	ERDS2TJ223	1/4W 22K
R317	ERDS2TJ821	1/4W 820
R318	ERDS2TJ472	1/4W 4.7K
R319	ERDS1FVJ6R8T	1/2W 6.8 ⚠
R320, 321	ERDS2TJ101	1/4W 100
R401	ERDS2TJ102	1/4W 1K
R402	ERDS2TJ560T	1/4W 56
R403-410	ERDS2TJ221	1/4W 220
R411-418	ERDS2TJ472	1/4W 4.7K
R419	ERDS2TJ104	1/4W 100K
R420	ERDS2TJ103	1/4W 10K
R421	ERDS2TJ472	1/4W 4.7K
R422	ERDS2TJ102	1/4W 1K
R423	ERDS2TJ472	1/4W 4.7K
R601	ERDS2TJ223	1/4W 22K
R602	ERDS2TJ123	1/4W 12K
R603	ERDS2TJ682T	1/4W 6.8K
R604	ERDS2TJ472	1/4W 4.7K
R605	ERDS2TJ332	1/4W 3.3K
R606	ERDS2TJ222	1/4W 2.2K
R607	ERDS2TJ182	1/4W 1.8K
R608	ERDS2TJ152	1/4W 1.5K
R609	ERDS2TJ122	1/4W 1.2K
R610	ERDS2TJ102	1/4W 1K

Ref. No.	Part No.	Values & Remarks
R611	ERDS2TJ821	1/4W 820
R612	ERDS2TJ122	1/4W 1.2K
R613	ERDS2TJ102	1/4W 1K
R614	ERDS2TJ821	1/4W 820
R701	ERJ6GEYJ100	1/10W 10
R702	ERJ6GEYJ471V	1/10W 470
R703	ERJ6GEYJ823	1/10W 82K
R704	ERJ6GEYJ102A	1/10W 1K
R705	ERJ6GEYJ103V	1/10W 10K
R706	ERJ6GEYJ102A	1/10W 1K
R707	ERJ6GEYJ473V	1/10W 47K
R708	ERJ6GEYJ224V	1/10W 220K
R709	ERJ6GEYJ683V	1/10W 68K
R711	ERJ6GEYJ154V	1/10W 150K
R712	ERJ6GEYJ471V	1/10W 470
R714	ERJ6GEY0R00A	1/10W 0.00
R717-720	ERJ6GEYJ102A	1/10W 1K
R721	ERJ8GEYJ101V	1/8W 100
R722	ERJ6GEYJ473V	1/10W 47K
R723	ERJ6GEYJ182V	1/10W 1.8K
R724	ERJ6GEYJ333V	1/10W 33K
R725	ERJ6GEYJ472V	1/10W 4.7K
R726	ERJ6GEYJ473V	1/10W 47K
R727	ERJ6GEYJ103V	1/10W 10K
R728	ERJ6GEYJ392V	1/10W 3.9K
R730	ERJ6GEYJ331V	1/10W 330
R731	ERJ6GEYJ392V	1/10W 3.9K
R734-736	ERJ6GEYJ101V	1/10W 100

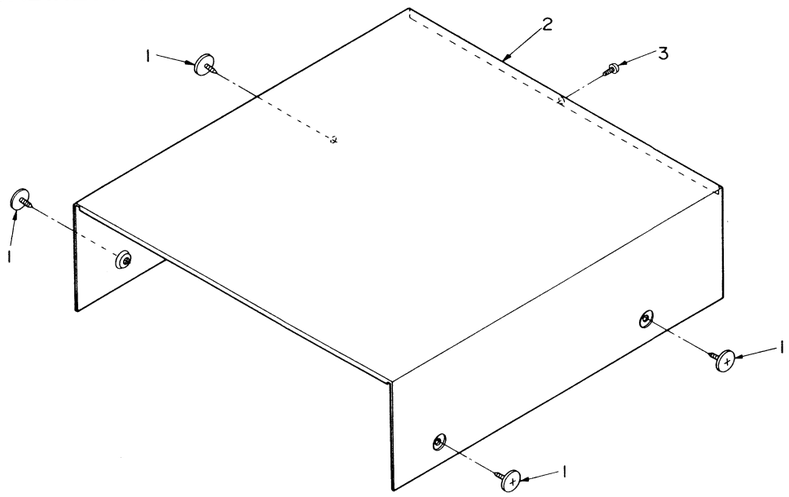
Ref. No.	Part No.	Values & Remarks
R738	ERJ6GEYJ223V	1/10W 22K
R739	ERJ6GEYJ681V	1/10W 680
R741-743	ERJ6GEYJ562V	1/10W 5.6K
R744	ERJ6GEYJ103V	1/10W 10K
R745	ERJ6GEYJ155V	1/10W 1.5M
R746	ERJ8GEYJ103V	1/8W 10K
R747	ERJ6GEYJ473V	1/10W 47K
R801, 802	ERDS2TJ104	1/4W 100K
R803-806	ERDS2TJ223	1/4W 22K
R807, 808	ERDS2TJ273	1/4W 27K
R809, 810	ERDS2TJ332	1/4W 3.3K
R811-814	ERDS2TJ104	1/4W 100K
R815, 816	ERDS2TJ102	1/4W 1K
		CAPACITORS
C1	ECA1CM222B	16V 2200U ⚠
C2	ECA1EM101B	25V 100U ⚠
C3, 4	ECBT1E103ZF	25V 0.01U
C5	ECBT1H102KB5	50V 1000P
C8	ECEA0JKA221B	6.3V 220U
C10	ECEA1AKA221Q	10V 220U
C11	ECBT1H102KB5	50V 1000P
C12	ECEA1AKA101B	10V 100U
C16	ECEA0JKA470B	6.3V 47U
C17	ECBT1H102KB5	50V 1000P
C18-20	ECEA0JKA470B	6.3V 47U
C21	ECBT1H102KB5	50V 1000P
C101	ECBT1H102KB5	50V 1000P
C102	ECA1HM101B	50V 100U ⚠
C103	ECKR2H102ZF5	500V 1000P
C301, 302	ECBT1H101KB5	50V 100P
C303	ECBT1H104ZF5	50V 0.1U
C304	ECEA0JKA470B	6.3V 47U
C305, 306	ECBT1E103ZF	25V 0.01U
C307, 308	ECEA1HKA3R3B	50V 3.3U
C309	ECBT1H102KB5	50V 1000P
C310	ECEA1HKSR33B	50V 0.33U
C311	ECEA1HKSR22B	50V 0.22U
C312	ECBT1E223ZF	25V 0.022U
C313	ECBT1E103ZF	25V 0.01U
C314, 315	ECBT1H101KB5	50V 100P
C316	ECA0JM102B	6.3V 1000U
C317	ECEA0JKA101B	6.3V 100U
C401	ECBT1H102KB5	50V 1000P
C402	ECBT1E103ZF	25V 0.01U
C403, 404	ECBT1H102KB5	50V 1000P
C405	ECBT1E103ZF	25V 0.01U
C406	ECBT1H104ZF5	50V 0.1U
C501	ECA1AKF820E	10V 82U
C701	ECEA0JKA220	6.3V 22U
C702	ECEA1HKA010I	50V 1U

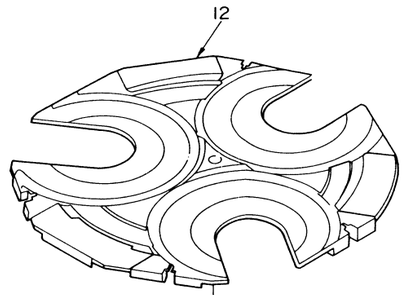
Ref. No.	Part No.	Values & Remarks
C703	ECEA0JKA101I	6.3V 100U
C704	ECUZ1E104MBN	25V 0.1U
C705	ECEA1HKA010I	50V 1U
C706	ECUE1H101JCN	50V 100P
C708	ECUE1H472KBN	50V 4700P
C709	ECUE1C473KBN	16V 0.047U
C710	ECUE1H152KBN	50V 1500P
C711, 712	ECUZ1E104MBN	25V 0.1U
C713	ECUV1C104MBM	16V 0.1U
C714	ECEA0JKA101I	6.3V 100U
C715	ECEA0JKA470I	6.3V 47U
C716	ECUE1H561KBN	50V 560P
C717	ECUZ1E104MBN	25V 0.1U
C718, 719	ECUV1C224KBM	16V 0.22U
C721, 722	ECUE1H100DCN	50V 10P
C723	ECEA1AKA221I	10V 220U
C724	ECUV1C104MBM	16V 0.1U
C725, 726	ECUE1H102KBN	50V 1000P
C727, 728	ECEA1HKA010I	50V 1U
C730	ECUZ1E104MBN	25V 0.1U
C731, 732	ECA05SD151I	6.3V 150U
C733	ECUZ1E104MBN	25V 0.1U
C734	ECEA1AKA221I	10V 220U
C735-737	ECUZ1E104MBN	25V 0.1U
C738	ECUV1C154KBN	16V 0.15U
C742	ECUV1E273KBN	25V 0.027U
C743	ECUZ1E104MBN	25V 0.1U
C744	ECUE1E822KBN	25V 8200P
C745	ECUE1C473MBN	16V 0.047U
C746	ECUE1H050DCN	50V 5P
C747	ECUE1H222KBN	50V 2200P
C748	ECUV1H271KBM	50V 270P
C801, 802	ECBT1H331KB5	50V 330P
C803, 804	ECBT1H121KB5	50V 120P
C805, 806	ECEA1EKA220B	25V 22U
C807, 808	ECBT1H101KB5	50V 100P
		CHIP JUMPERS
RJ701	ERJ8GEY0R00A	1/10W 0
RJ702	ERJ8GEY0R00A	1/10W 0
RJ703	ERJ8GEY0R00A	1/10W 0
RJ704	ERJ8GEY0R00A	1/10W 0
RJ705	ERJ8GEY0R00A	1/10W 0
RJ706	ERJ8GEY0R00A	1/10W 0
RJ707	ERJ8GEY0R00A	1/10W 0
RJ708	ERJ8GEY0R00A	1/10W 0
RJ709	ERJ8GEY0R00A	1/10W 0
RJ710	ERJ8GEY0R00A	1/10W 0
RJ711	ERJ8GEY0R00A	1/10W 0
RJ712	ERJ8GEY0R00A	1/10W 0
RJ713	ERJ8GEY0R00A	1/10W 0

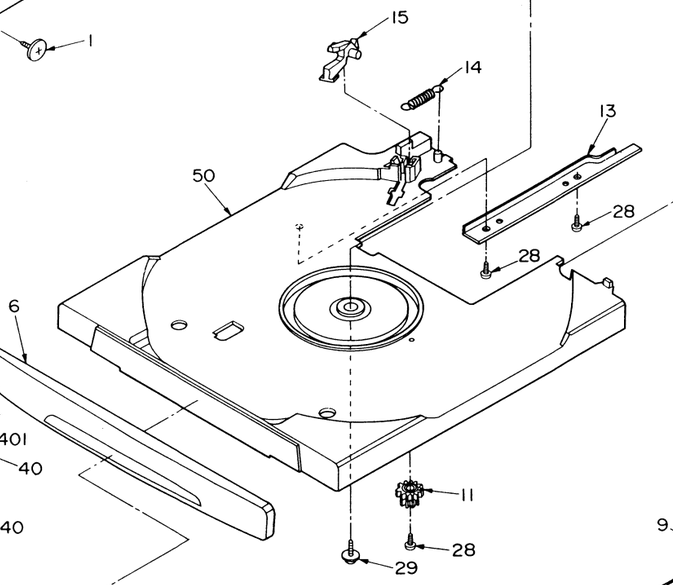
Ref. No.	Part No.	Values & Remarks
RJ714	ERJ8GEY0R00A	1/10W 0
RJ715	ERJ8GEY0R00A	1/10W 0
RJ716	ERJ8GEY0R00A	1/10W 0
RJ717	ERJ8GEY0R00A	1/10W 0
RJ721	ERJ8GEY0R00A	1/10W 0
RJ722	ERJ8GEY0R00A	1/10W 0
RJ724	ERJ8GEY0R00A	1/10W 0
RJ725	ERJ8GEY0R00A	1/10W 0
RJ726	ERJ8GEY0R00A	1/10W 0

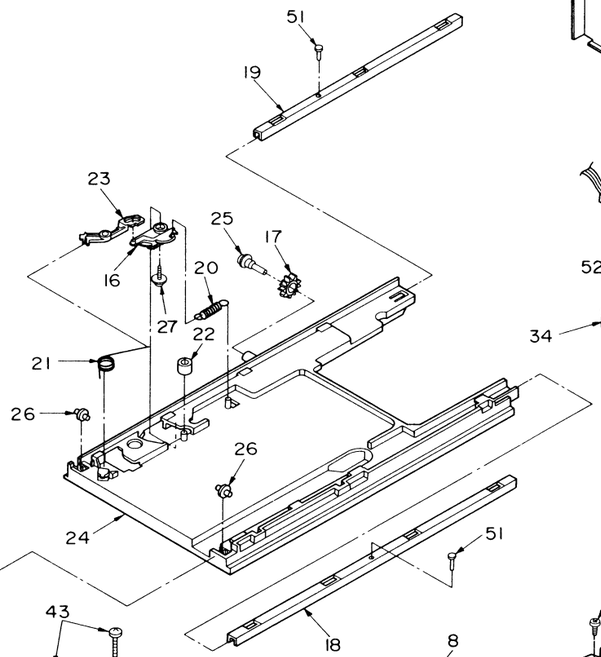
■ CABINET PARTS AND LOADING UNIT PARTS LOCATION

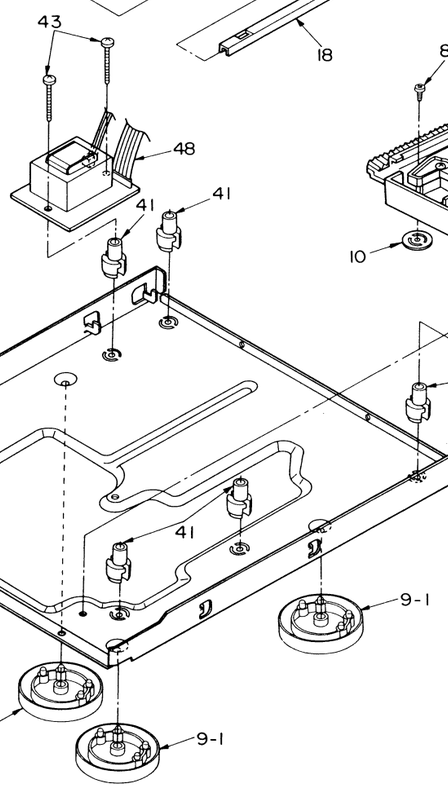
•CABINET PARTS

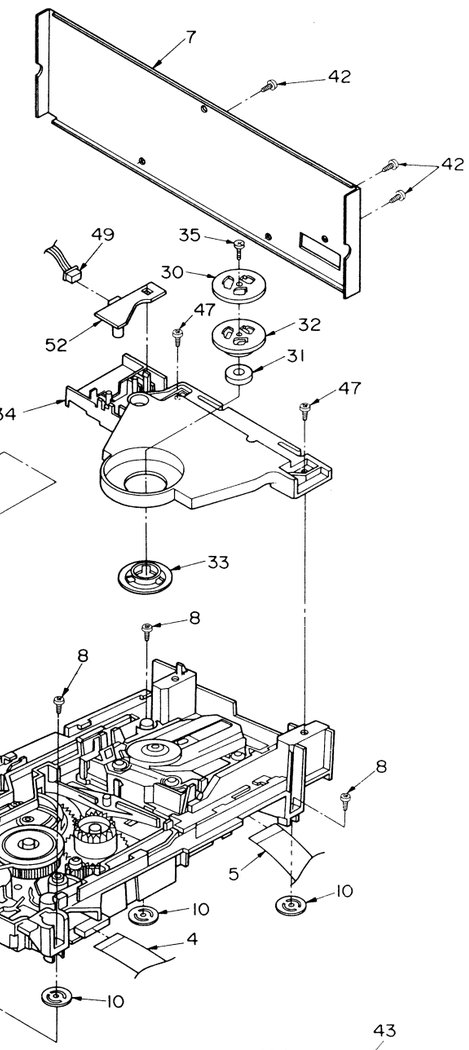


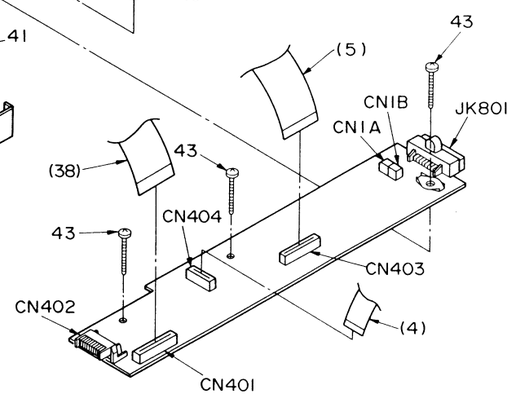






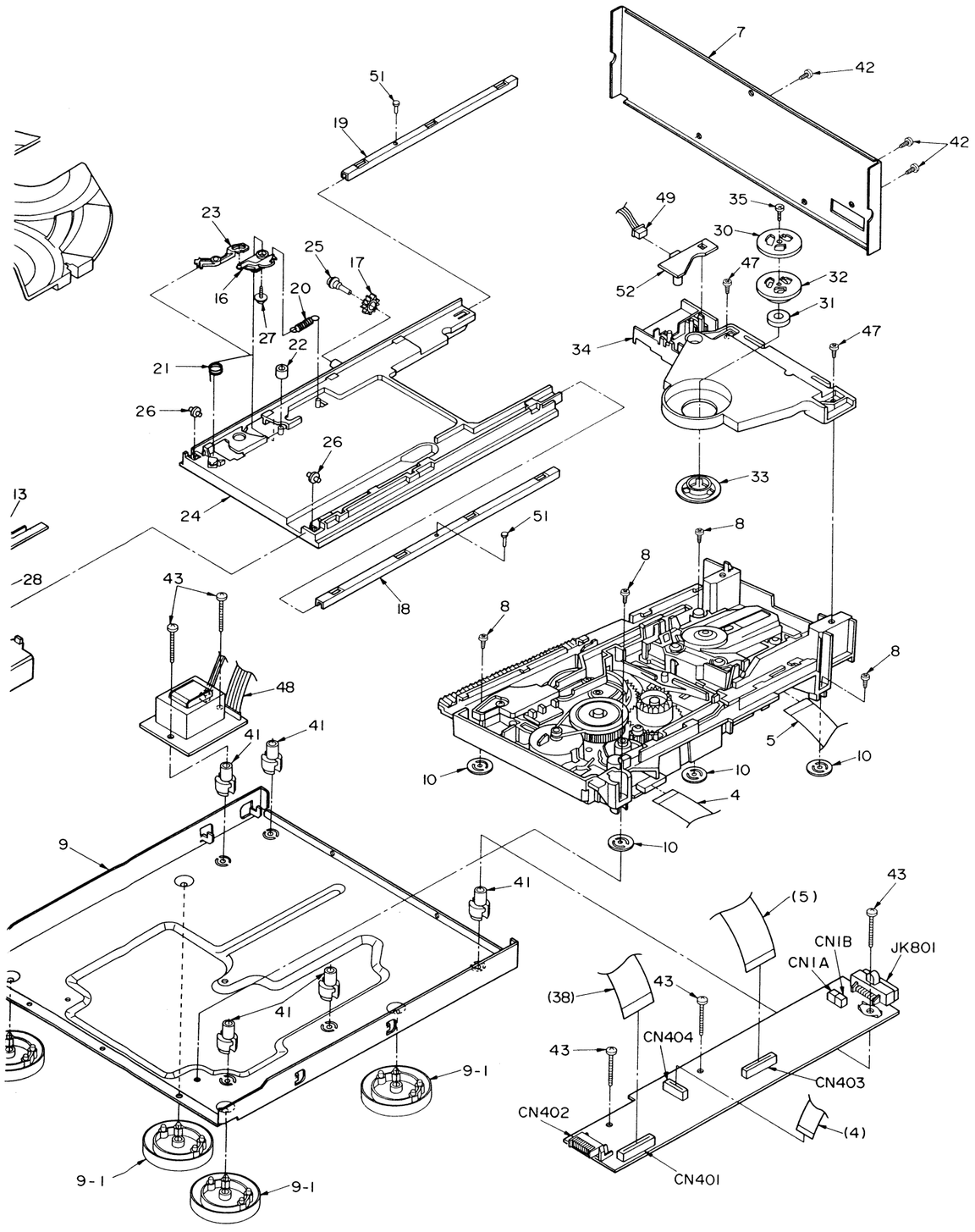


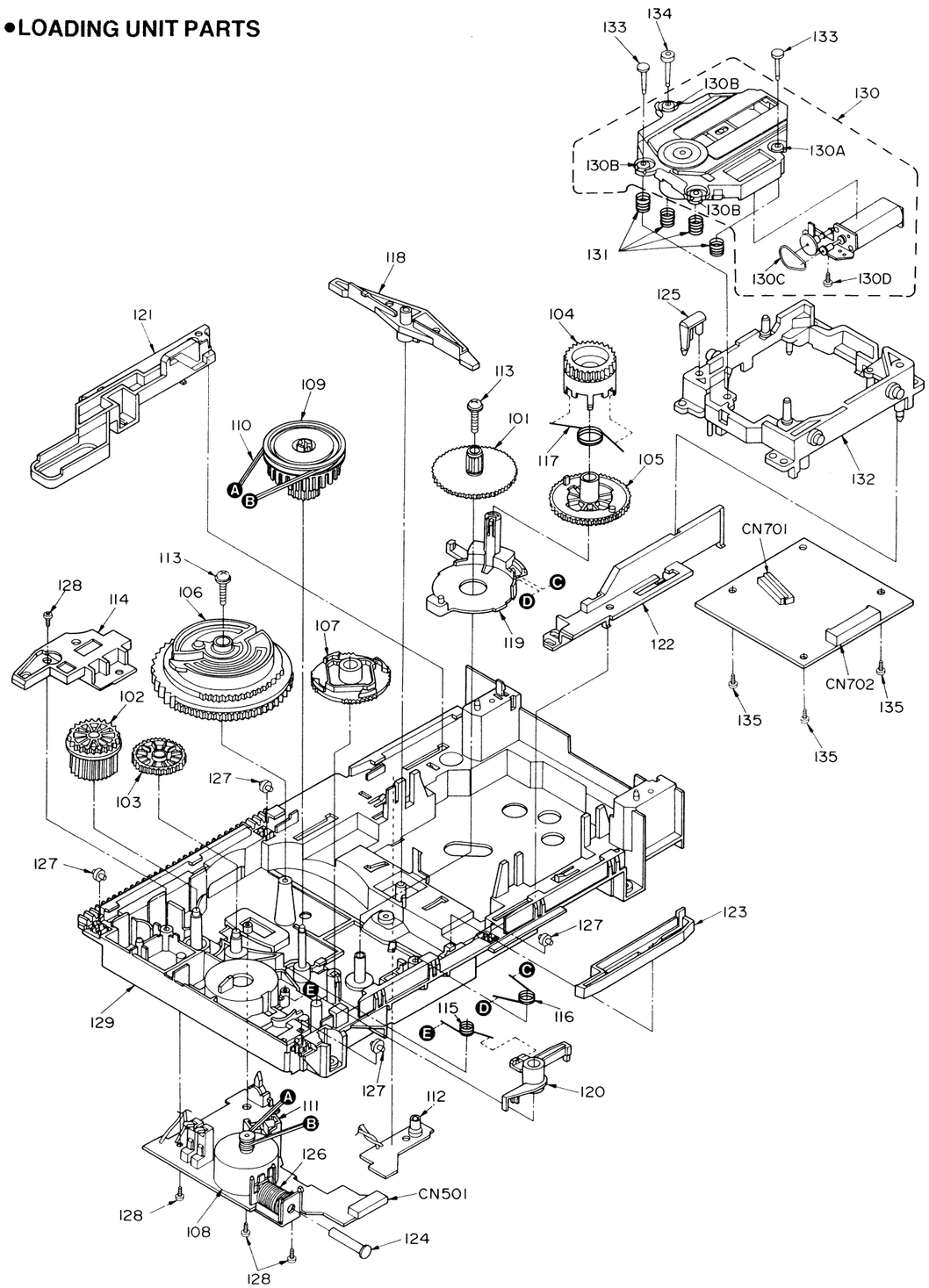




6 7 8 9 10 11 12 13 14

•LOADING UNIT PARTS





Ref. No.	Part No.	Part Name & Description	Remarks
		CABINET PARTS	
1	RHD30007	SCREW	
2	RKM0222-K	CABINET	
3	XTBS3+8JFZ1	SCREW	
4	REZ0555	FLAT CABLE	
5	REZ0556	FLAT CABLE	
6	RGK0536-K	TRAY PANEL	
7	RGR0162A-C	REAR PANEL	
8	RHD30043	SCREW	
9	RFKJLCH555PA	BOTTOM BOARD ASS'Y	
9-1	RKA0055-N	FOOT	
10	RMG0319-K	BUBBER	
11	RDG0228	GEAR	
12	RGT0014	ROTARY TRAY	
13	RMA0681	ANGLE	
14	RME0123	SPRING	
15	RML0312	LEVER	
16	RDG0225	GEAR	
17	RDG0227	GEAR	
18	RMA0654	ANGLE(A)	
19	RMA0655	ANGLE(B)	
20	RME0123	SPRING	
21	RME0139	SPRING	
22	RMG0293-C	RUBBER	
23	RML0291	LEVER	
24	RMR0627-K	TRAY BASE	
25	RMS0382	SHAFT	
26	SDRD14	ROLLER	
27	XTW3+6S	SCREW	
28	XTBS26+10J	SCREW	
29	XTWS3+10T	SCREW	
30	RDF0033	MAGNET HOLDER(A)	
31	RHM245ZA	MAGNET	
32	RMR0334	MAGNET HOLDER(B)	
33	RMR0624-W	DISC HOLDER	
34	RMR0625-W	DISC CLAMPER	
35	XTB3+6JFZ	SCREW	
36	RMN0195	FL SPACER	
37	RMN0213	FL HOLDER	
38	REZ0554	FLAT CABLE(23P)	
39	RFKGLCH555PK	FRONT PANEL ASS'Y	
39-1	RKW0258-V	FL PANEL	
40	XTBS26+8J	SCREW	
41	SHE185-2	P.C.B. SPACER	
42	XTBS3+8JFZ1	SCREW	
43	XTB3+16JFZ	SCREW	
44	RGU0860-K	BUTTON,	
45	RGU0861-K	BUTTON,	
46	RMA0691	ANGLE	
47	XTB3+10JFZ	SCREW	

Ref. No.	Part No.	Part Name & Description	Remarks
48	REZ0557	FLAT CABLE(7P)	(W101)
49	REX0482	FLAT CABLE(2P)	(W102)
50	RFKNLCH555PK	DISC TRAY ASS'Y	
51	XTN2+6F	SCREW	
52	RMN0222	LED HOLDER	
53	REZ0558	FLAT CABLE(3P)	(W601A/W601B)
		LOADING PARTS	
101	RDG0194	GEAR	
102	RDG0223	GEAR	
103	RDG0224	GEAR	
104	RDG0244	GEAR	
105	RDG0245	GEAR	
106	RDK0022	GEAR	
107	RDK0023	GEAR	
108	RFKPLCH555PK	MOTOR ASS'Y	
109	RDP0058	GEAR	
110	RDV0025	BELT	
111	RMN0204	SENSOR HOLDER	
112	RMN0222	LED HOLDER	
113	RHD30029	SCREW	
114	RMA0653	ANGLE	
115	RME0120	SPRING	
116	RME0121	SPRING	
117	RME0137	SPRING	
118	RML0177	LEVER	
119	RML0288	LEVER	
120	RML0289	LEVER	
121	RMM0097	SLIDE PLATE(1)	
122	RMM0098	SLIDE PLATE(2)	
123	RMM0099	SLIDE PLATE(3)	
124	RMS0398	PLUNGER	
125	RMX0072	LEVER	
126	RSJ0003	SOLENOID(PL501)	
127	SDRD14	ROLLER	
128	XTB3+10JFZ	SCREW	
129	RFKJLCH555PB	MECHANISM CHASSIS ASS'Y	
130	RAE0111Z	TRAVERSE UNIT ASS'Y	
130A	SHGD112	RUBBER(A)	
130B	SHGD113-1	RUBBER(B)	
130C	RDV0023	BELT	
130D	SNSD38	SCREW	
131	RME0109	SPRING	
132	RMR0533-K	TRAVERSE CHASSIS	
133	RMS0123-1	PIN(A)	
134	RMS0350	PIN(B)	
135	XTV2+6G	SCREW	

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ORDER NO. AD9411319S0
A6

Service Manual

Supplement

Compact Disc Player

Compact Disc Changer

SL-CH555

Colour

(K) : Black

Please file and use this supplement manual together with the service manual for the below Models.

Model No.	Original Service Manual Order No.
SL-CH555 (PP)	AD9302052C1
SL-CH555 (E)	AD9303076C8

Areas

Suffix for Model No.	Area	Colour
(PP)	U.S.A. and Canada	(K)
(E)	Europe, Asia, Latin America, Middle East, Africa and Oceania	

■ MAIN CHANGED POINTS

Semi-fixed VR (Used for Best eye (PD balance) adjustment) discontinued in accordance with improvement of servo IC. With the improvement of servo processor IC (IC702), Best eye (PD balance) adjustment is automated and if is no longer necessary to make the adjustment by turning the semi-fixed VR (VR701).
The schematic diagram, printed circuit board diagram and replacement parts list (electrical parts) have been partly changed.

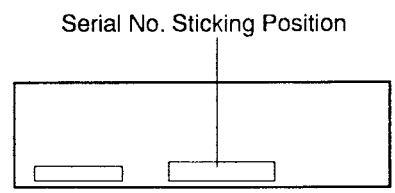
■ SERIAL NUMBER SUFFIX

Of those sets with Serial No. suffix **C** and onward, the conventional CD circuit has been changed to the new one.

Serial number

OOOOOOOOOO

Suffix



(Rear view)

⚠WARNING

This service information is designed for experienced repair technicians only and is not designed for use by the general public. It does not contain warnings or cautions to advise non-technical individuals of potential dangers in attempting to service a product.
Products powered by electricity should be serviced or repaired only by experienced professional technicians. Any attempt to service or repair the product or products dealt with in this service information by anyone else could result in serious injury or death.

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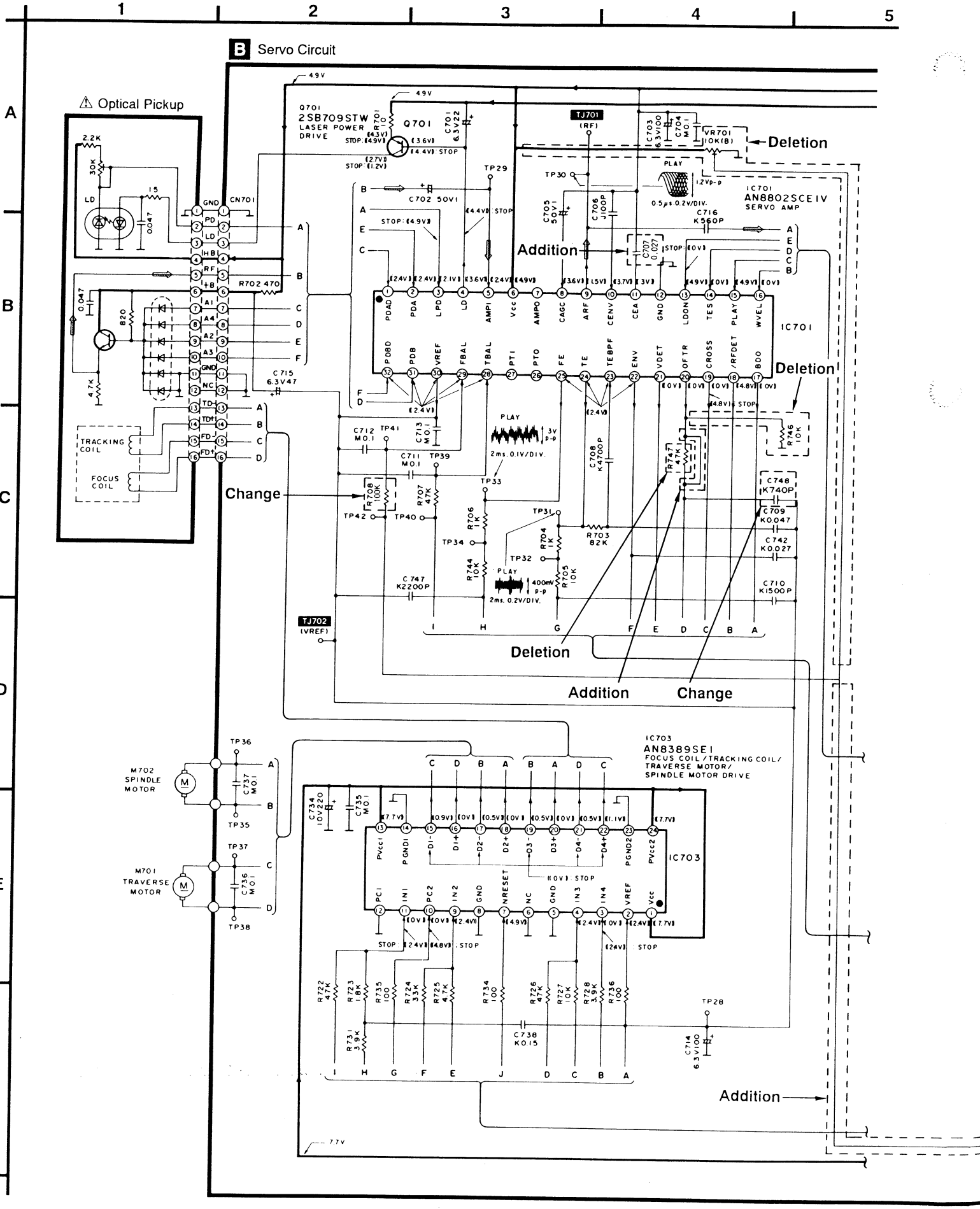
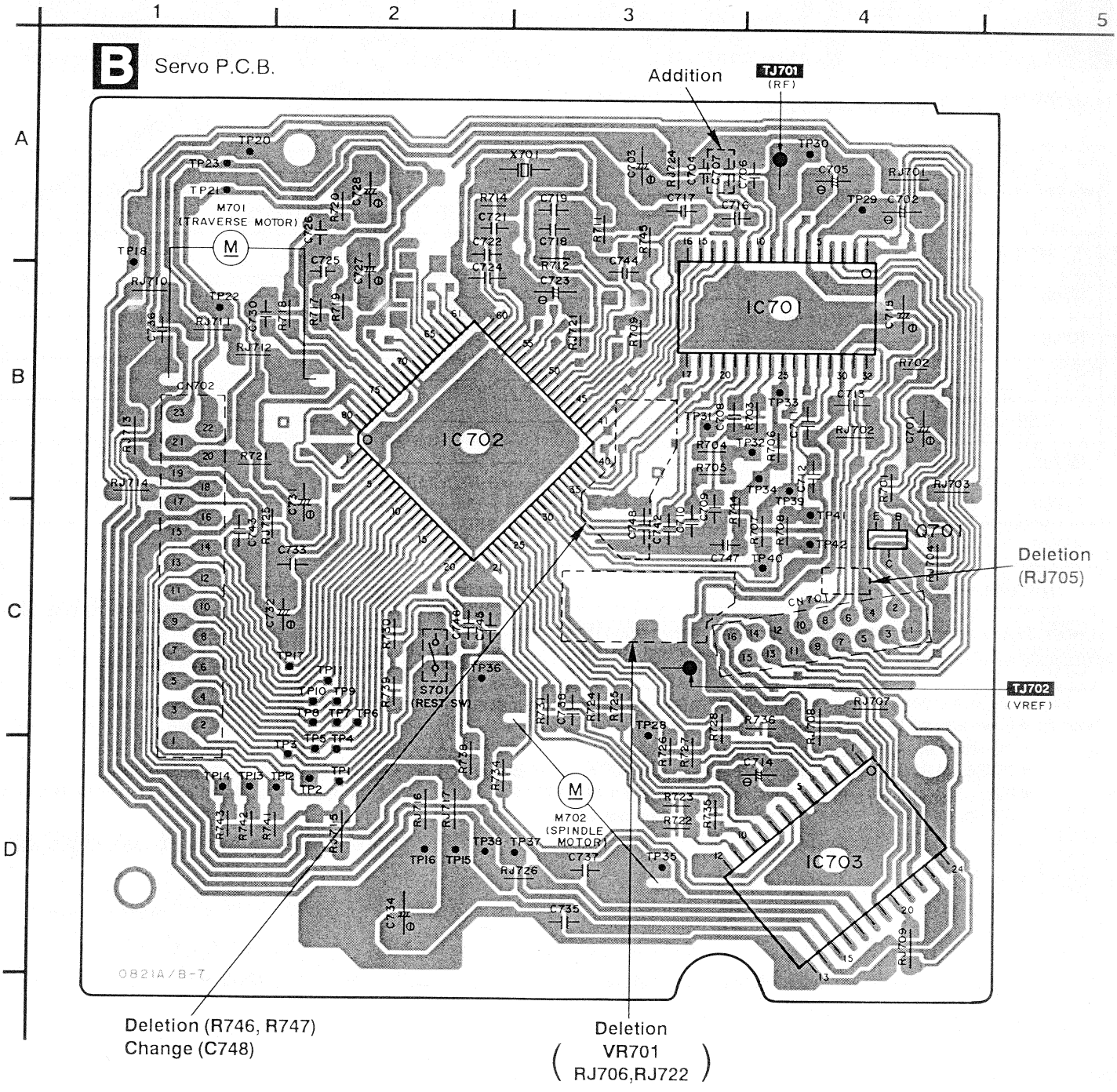
■ SCHEMATIC DIAGRAM

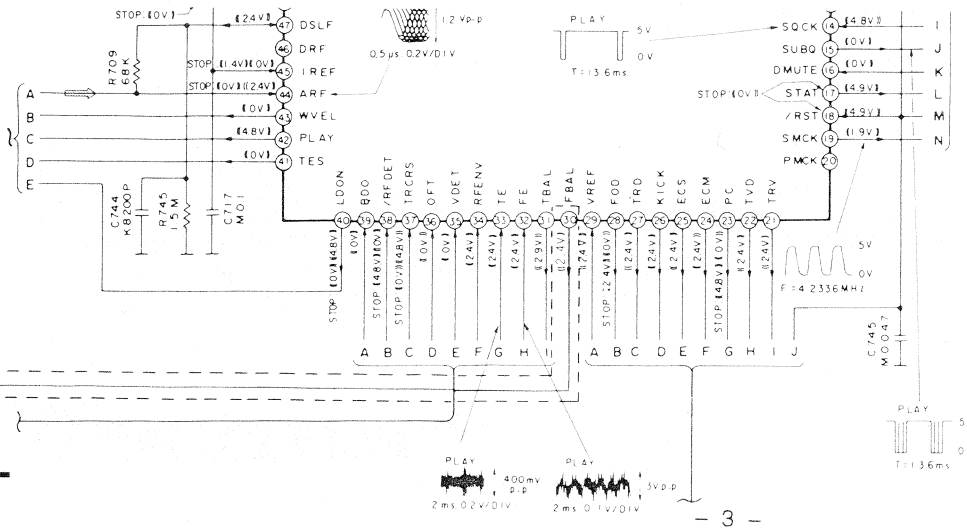
Note: Points changed from the Service Manual SL-CH555 are shown.



■ PRINTED CIRCUIT BOARD DIAGRAM

Note: This printed circuit board diagram shown a diagram after discontinuation of VR701.





■ CHANGE IN REPLACEMENT PARTS LIST

Note 1: Points changed from the Service Manual SL-CH555 are shown.

Ref. No.	Change of Part Number		Description	Remarks
	Original Service Manual	Supplement Service Manual		
VARIABLE RESISTOR				
VR701	EVNDXAA00B14	————	VR, BEST EYE ADJUSTMENT	Deletion
RESISTORS				
R708	ERJ6GEYJ224V	ERJ6GEYJ104V	1/10 W, 100 kΩ	Change
R746	ERJ6GEYJ103V	————	1/8 W, 10 kΩ	Deletion
R747	ERJ6GEYJ473V	————	1/10 W, 47 kΩ	Deletion
CHIP JUMPERS				
RJ705	ERJ8GEY0R00A	————	CHIP JUMPER	Deletion
RJ706	ERJ8GEY0R00A	————	CHIP JUMPER	Deletion
RJ722	ERJ6GEY0R00A	————	CHIP JUMPER	Deletion
CAPACITORS				
C707	————	ECUV1E273KBN	25V, 0.027 μF	Addition
C748	ECUV1H271KBM	ECUV1H471KBM	50V, 470 pF	Change

Note 2:
- Even among those sets using MN66271RA, there are some that are equipped with VR701. In this case, the old P.C.B. with its circuit unchanged is used.
- MN66271RA can be used for a set using MN66271, but MN66271 cannot be used for a set using MN66271RA.
- Even though a set using MN66271 is changed for MN66271RA, VR701 cannot be discontinued because of the difference in P.C.B. (circuit) (In this case, VR701 has to be adjusted.)

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